The School Arts Magazine

AN ILLUSTRATED PUBLICATION FOR THOSE
INTERESTED IN ART AND INDUSTRIAL WORK

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VOL. XIX FEBRUARY, 1920 No. 6

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Published by THE DAVIS PRESS, INC.

25 FOSTER STREET ∴ ∴ ∴ WORCESTER, MASSACHUSETTS

Entered as Second-Class Matter, August 1, 1917, at the Post Office at Worcester, Mass., under the Act of March 3, 1879. All rights reserved. Monthly except July and August. Subscription Rates $2.00 a year in advance; Canada $2.25; Foreign $2.50.

Copies on sale in New York at Brentano's, 27th St. & 5th Ave.; Cleveland, Ohio, Burrowes Bros. Co. Guardian Building; Chicago, Ill., A. C. McClurg's, 215 Wabash Ave.; London, Eng., Arthur F. Bird Co., 32 Bedford St., Strand; Philadelphia, Pa., Milton Bradley Co., 1209 Arch St.; Toronto, Canada, Geo. M. Hendry Co., 215 Victoria St.

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Please send Articles, Editorial Communications, and Books for review to the Editor at Stanford University, California; Business Letters and Orders for Material to The Davis Press, Worcester, Mass.

"At present we have a totally false importance of so-called art in America. We demand that art shall rest in a frame, and manual labor, no matter how artistic is associated with degradation whereas art is really doing in a beautiful way of simple things the putting of wisdom into work, and when wisdom has been expressed in labor, the result is beauty." The Craftsman

THE SCHOOL ARTS MAGAZINE

VOL. XIX. No. 6 FEBRUARY, 1920

Hospital Handicraft

OCCUPATIONAL THERAPY

ETHELYN J. MORRIS

Director of Occupational Therapy, U. S. Base Hospital, Palo Alto, Cal

IT IS only since our connection with the world war that we have heard much of "Occupational Therapy," curative occupations, as the name implies, and yet for some years in this country certain nerve specialists have been occupying their patients with manual arts, or hobbies in the estimation of most of us.

Slowly the idea has grown and obtained a following here and there, aided possibly by such bodies as the Arts and Crafts Societies, Hull House and private or semi-public individuals of more or less philanthropic tendencies. However, it has taken the war to make the world realize the tremendous importance of handwork for the wounded and crippled, and to appreciate that recovery of our fighting men might be hastened, or at least assisted, by the establishment of occupational therapeutics in the army hospitals.

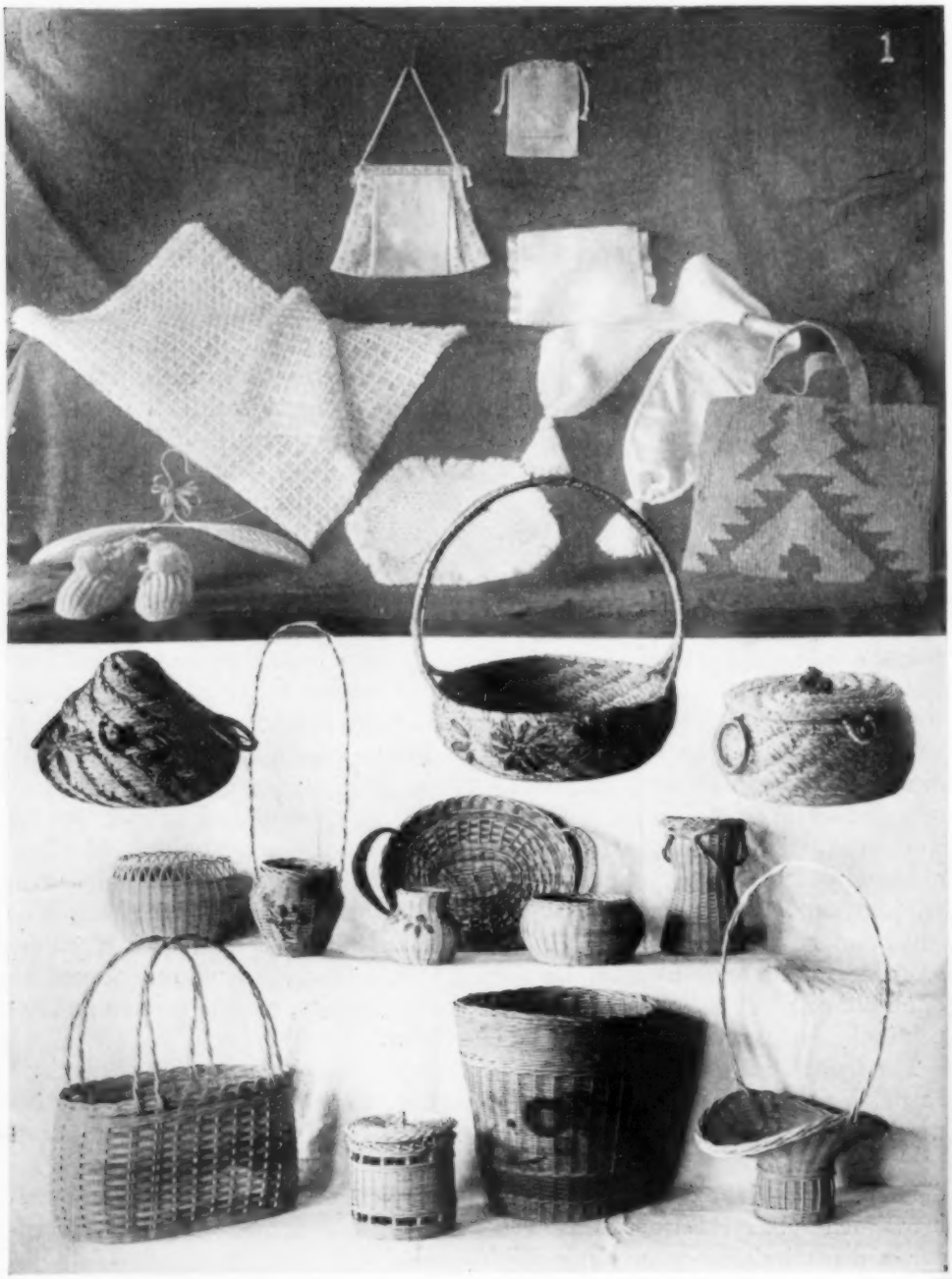
The United States saw what France, England, and Canada were doing in the way of re-education in their war hospitals, and so classes were formed in different parts of the country for training women to be reconstruction aides in our own medical corps,—to work with the doctors and nurses in the wards teaching the patients handicrafts, in some instances to give such exercise to certain muscles and joints as would help the cure in a purely physical sense; and, in other cases, to keep the mind free from worry and discontent.

The studies prescribed for the aides were along the lines of hand crafts rather than mental subjects, upon the theory that patients who are happily engaged in some manual creative work which does not require much effort will improve in physical condition, and the experience of our reconstruction hospitals proves that this form of cure has been more than worth while.

Now the United States Public Health Service, supported by the Government under the Treasury Department for the benefit of discharged sailors, soldiers, marines, and all government employees, has adopted occupational therapy as used in the army, and this will mean the addition of cheer and contentment to many a weary, restless seaman and ex-soldier.

In one hospital, at least, where there seemed to be a crying need for curative work the Red Cross furnished aides and material for carrying on the work for more than eight months with great success until it was taken by the Government.

Undoubtedly, handwork will become, in a not distant future, a valuable function in all thoroughly equipped hospitals and it seems strange that this principle



WEAVING AND BASKETRY MADE BY PATIENTS OF THE U. S. BASE HOSPITAL, PALO ALTO, CAL., UNDER THE DIRECTION OF ETHELYN J. MORRIS

of therapeutics with its interest augmented by the invigoration of work itself has not already been more generally used.

The satisfaction of doing something is a curative instrument of great power, and while a patient will not usually work merely to improve his physical condition, he will gladly work for the interest of what he is accomplishing, and this interest and exercise prove beneficial to him mentally and physically.

At the very beginning of convalescence, bedside occupation should be applied before the patient has become hospitalized or acquired the habit of invalidism. His tastes and natural proclivities should be studied and the work varied according to the progress of his cure.

Occupational therapy is not expected to completely restore the patient, but to encourage and lead him in the right direction. Yet there have been some mental cases discharged from hospitals as cured who had no treatment whatever except interesting handwork, simple crafts which occupy the mind and time and bring in a small remuneration.

In the writer's experience the most satisfactory results have been obtained when the men have been allowed to keep the article made after paying for the materials used or when they are given the profit on articles sold after deducting the cost. Of course there are exceptional cases when it is wise and advisable not to count the expense.

In regard to the class of products turned out by the young men in the hospitals, it is a great surprise to many people when they see the varied and beautiful articles made by these soldiers and sailors who had no previous training in craft work. Their aptness and accuracy are remarkable; they are easy to teach, are enthusiastic in the extreme and are not, as a rule, willing to pass over a flaw or an error without correction.

The crafts which are almost purely mechanical, like rake knitting and colonial mat making, are the ones with the greatest appeal, probably, because when the body is sick, the brain is tired and not capable of much effort. But these very primitive operations may lead to excellent products and to higher

forms of handwork, and they serve their purpose in keeping the worker busy and happy.

In illustration No. 1, the slippers and child's muff and scarf are made on a rake, just a bar of wood with pegs in it, and with a nut pick. The table mat is made on a hexagonal frame by carrying the threads across in three directions at half-inch intervals and tying at every crossing; the shawl is made according to the same principle on a larger square frame.

Weaving is also popular if bright colors are employed, and belts, bags, and scarfs are among the articles woven.

Beadwork with its fascinating colors and designs is perhaps the favorite employment of all among the young men, not only because they wish to make some appropriate gift to their sweethearts, wives and sisters, but for the pure joy of working with pretty, sparkling colors. One patient refused to undertake basketry on the plea that he was too nervous, but insisted upon making bead necklaces, at which he worked tirelessly.

Threads and beads, bright colored yarns, basketry and leather have a much stronger hold on them than woodwork,

perhaps because these are newer to them or possibly because of the colors involved.

After handwork has once taken hold on a ward it is more contagious than scarlet fever. Let one man start a colonial mat and there is an immediate demand for frames and cotton all over the ward. It is not hard to induce them to work, but they require careful guidance, close attention and undying interest if the best results are to be obtained.

To a reconstruction aide, each day has its new interests and problems and duties. Every ounce of patience, tact, enthusiasm, common sense and love are necessary if one is to do her full duty, but the satisfaction of the work is worth all its demands.

EVERYTHING BOTH IN NATURE AND THE WORKS OF MAN IS PRODUCED BY A PROCESS OF BUILDING. THE ROCK IS BUILT UP OF ATOMS; THE PLANT, THE ANIMAL, AND MAN ARE BUILT UP OF CELLS; A HOUSE IS BUILT OF BRICKS, THE BOOK IS BUILT OF LETTERS. A WORLD IS COMPOSED OF A LARGE NUMBER OF FORMS, AND A CITY OF A LARGE NUMBER OF HOUSES. THE ARTS, SCIENCES, AND INSTITUTIONS OF A NATION ARE BUILT UP BY THE EFFORTS OF INDIVIDUALS. THE HISTORY OF A NATION IS THE BUILDING OF ITS DEEDS.

JAMES ALLEN

A School Handicraft as a Business

DOROTHY G. RICE
Art Director, Malden, Mass., High School

"YOU know, boys and girls, that I try every year to find something new and interesting for you to do, and this fall we are going to try the most fascinating work of all." Thus spake the Art Instructor of Malden High School. "We are going into business! We may not get rich, but perhaps we can place the Art Department upon a paying basis. Everything depends upon you!"

Looks of incredulity, alertness, and enthusiasm greeted these remarks.

"First, I will tell you the story of this scheme. I found this advertisement in a Boston paper. 'Cordelieres—the latest Parisian novelty.' As you see, it depicts a girl with a chain wound twice around her neck, with the two ends pendant, a tassel at the end. Then I found this material. You see how soft it is, and how it can be molded into any shape; yet it becomes as hard as stone. I made this chain." The pupils crowded around with admiring exclamations.

"No, the pink beads came from Venice; they gave me my color scheme—the pink hawthorne blossoms and leaves made the pendants and you see they differ. I had to make four designs for them. Then the stems suggested the long beads and the berries the next large green beads."

"Can we do that?" asked someone.

"Yes, and we are going to sell our work—the Smart Shop will take everything we can make. We shall pay them a commission and also pay a certain per cent to the school. You see it all depends upon you, as I said. You must each make a sheet of plant analysis, for we mustn't forget how to draw. And you must scour the woods for material, and be keen on the scent for effective ideas."

POSTERS DRAWN BY THE STUDENTS TO ADVERTISE LITHOKRAFT JEWELRY.

NATURE MOTIFS FOR BEADWORK. ILLUSTRATING THE METHOD USED BY THE STUDENTS OF THE MALDEN, MASS., HIGH SCHOOL FOR SECURING DESIGNS FROM NATURE FOR THE LITHOKRAFT JEWELRY

Nature study was never so popular before. They went to work with a will.

Soon after this talk, we voted on various plans and finally decided on profit-sharing. We also decided to adopt "Lithokraft" as our trademark, the name suggesting *stone* and *workmanship*.

We then organized into departments, each choosing the work for which he felt himself best fitted. We thus hoped to secure the greatest efficiency—yet it was understood that the various departments might borrow workers from another department when necessary.

At the head of the Department of Design is a pupil who works out suggestions offered by others, and she has able assistants. Those in the Modeling Department vary in skill from those who roll out beads by the dozen to one who may sometime become a sculptor.

The Color Department paints the models from colored sketches furnished by the Designers, and the Publicity Department attends to the posters, circulars, bill-heads, order blanks, etc.

To the Construction Department we leave the important work of stringing the beads, making the wire foundation for bag-tops, etc., and umbrella handles, and the more attractive work of dainty boxes for shipping the jewelry.

The Business Department takes care of our bookkeeping, buying and paying for materials, sending circulars and bills, and placing posters and advertisements.

The Business Manager is active in securing orders and, while as yet we have no traveling salesmen, a few have applied for the job.

When there is not a rush of orders pupils work for themselves, using their own material, thus satisfying the desire for self-expression, but the very fact that each has chosen his own department seems to give satisfaction.

Doubtless, a scheme like this would not be practical with large classes, but drawing with us is elective and therefore better in quality. A teacher and assistant find plenty to do with six classes a day, especially as many pupils come for extra periods; but there is such a lovely spirit of co-operation that it is a pleasant and an easy task.

COMPETITION IS SO ACUTE THAT ONLY A FEW CAN HOPE TO SUCCEED AS PAINTERS AND SCULPTORS, YET, AS CRAFTSMEN, THERE IS EVERY PROBABILITY THAT NEARLY EVERYONE WHO WOULD PASS THROUGH A SUFFICIENT PERIOD OF APPRENTICESHIP TO WORKMANSHIP AND DESIGN WOULD REACH A MEASURE OF SUCCESS.

W. R. LETHABY

The Greatest Art

ALL the greatest art the world has ever produced is fitted for a place and subordinated to a purpose. The best sculpture yet produced has been the decoration of the front of a temple: the best painting, the decoration of the walls of a room. The greatest work of Raphael is simply the well-coloring of the walls of a suite of apartments in the Vatican: and his cartoons are only designs for tapestry. Michael Angelo's greatest painting is on a ceiling in the Pope's private chapel. And we may multiply such instances. Leonardo da Vinci's greatest work is the decoration of a wall in a dining-room for monks. The greatest work of Lorenzo Ghiberti, the leader of Renaissance sculpture in Florence, was simply the execution of some bronze gates. Gibbon says of the great church of St. Peter's in Rome, designed by twelve architects, among whom were Michael Angelo, Bramante, and Raphael, that it is the most glorious structure that has ever been applied to the use of religion: while the Roman aqueducts, those marvelous creations of architecture, enriched by noble sculpture, were simply troughs for carrying water.

Ruskin.

Industrial Art

THE art industries of a people are important to its wealth, its rank among nations, and its culture and refinement. Surely it is of the utmost importance to the wealth of a nation, whether it possesses within itself the power to transform its own natural products into articles of value, or whether it must spend vast sums abroad in order to obtain them. Also its dignity and importance among the nations of the world will be measured by the value of those things it sends them.

I wonder if any of us have the slightest idea how important a part in our lives the Industrial Arts occupy? How, if worthy, they rest and satisfy us, whether we are at home or abroad? How they educate us, either rightly or wrongly? How they are capable of giving interest and enjoyment to the dullest, most prosaic work? How we reveal ourselves through our choice of their products? We cannot separate their influence from our daily life, and even think what it would be if they did not minister to us. Do we sit in our homes? Our feet rest upon the carpet whose colors are unconscious educators,—the walls, however simple their decoration, the very forms of our sofas and chairs; the china and glass we use upon our tables, the vases upon our mantels, the bindings of our books, the covers of our magazines, the hangings of our windows, the clothing we wear,—in everything, the Industrial Arts are being woven into our lives; and in a reflex manner, our lives, the thoughts and feelings of our people, are being revealed through them."

Phillip C. Garrett.

An Industrial Art Service

PAUL K. M. THOMAS
New York City

ONE who teaches others how to make beautiful things must often feel the satisfactions of an artist in a two-fold way. His pupil's mind is a medium more plastic than any clay or other material he may work with and although relatively few of those taught will be craft workers and fewer still artists, yet even the teachers commonly undervalue the impression they make on their pupils' attitude of mind toward all things beautiful. That very impression, however slight or fleeting it may appear to be, creates a craving and a respect for things beautiful, and later will also create the demand which is indispensable to encourage artists to produce great work. This is the only way in which art can prosper now with us, by becoming universal, by being something to which everybody's heart responds. We may not all be producers of beautiful things, but we can as a nation be much more appreciative.

One of the strongest influences at work in this country today for the development of this appreciation, especially of the art in objects of everyday use, is the Art Alliance of America with headquarters in New York City. Appropriately to so big and complex a task, its activities are extremely varied, yet these are carried on without duplicating the work of other organizations. Indeed, the whole plan of this institution is to reinforce and help all other artistic activities, commercial and otherwise, much as the clearing houses figure in the financial world.

In the one matter of asserting the right of everybody to the thrill of pleasure, which only the contemplation of the beautiful object can give, the Art Alliance is daily performing an inestimable service to the nation. It is important that teachers should realize that here is an institution which, through a nation-wide propaganda, is awakening a sentiment in favor of the industrial arts for America on a scale vast enough to satisfy the best hopes of the lover of things beautiful. Association with this organization gives moral and material support to every teacher of drawing and of the crafts.

The Art Alliance of America has attractive galleries at 10 East 47th Street, where it holds a continuous series of exhibitions, each one devoted to some special idea underlying our national artistic development, and each intended to illustrate in a practical and vivid way the importance to the whole American people of fostering and developing their resources of arts and crafts.

The monthly exhibitions are planned in such a way as to arouse the widest interest; many of them are competitive. The co-operation of leading houses in the different industries is obtained, and these houses not only offer liberal prizes for new ideas and designs and make extensive purchases, but, what is of specia

EXHIBITION ROOMS OF THE ART ALLIANCE OF NEW YORK, SHOWING THE ARTISTIC DISPLAYS AND WALL ARRANGEMENTS USED IN THEIR PERMANENT EXHIBITION

value to the designer, they give details of the complicated technical processes of the industries, as well as information regarding important marketing conditions. These exhibitions and competitions include textile design and hand decorated textiles, wall paper designs, toys, posters, cover designs, and all forms of graphic arts, jewelry, pottery, etc. Printed announcements of the competitions held by the Art Alliance of America are sent broadcast over the whole country to a multitude of members that constitute the growing army of those actively interested in the work of this institution. For the last competitions of textile designs held in co-operation with "Women's Wear," 1741 drawings were submitted by 504 designers residing in 26 states. Prizes awarded totaled $1800 and many designs were sold.

Still other exhibitions aim to illustrate some particular development of art in America. Such was the recent exhibition of Foreign Handicrafts, which included the products of nineteen nationalities. Most of the work was done in this country by immigrants who had gained their technical ability abroad and who, on coming here, were fully established as competent craftsmen. The Art Alliance of America arranged that many of these very weavers, embroiderers, lace-makers, potters and others should carry on their craft in the galleries during the exhibition as an example and an inspiration to our own enthusiasts who have not had the advantage of lifelong, daily association with making the common things of life beautiful. A Hungarian peasant could not go happily to sleep at night if his pillow lacked the familiar close-worked embroidery; and what Bohemian would consider his meal well served unless on plates and dishes decorated with the old Moravian patterns? How many in this country knew, until the Art Alliance of America pointed out the fact, that this very china decoration is being authentically done by Bohemians in New York City itself?

These foreigners are here to make this country their permanent home. They will not deprive the born Americans of any opportunity, but will rather by their inventiveness create new opportunities for us as well as for themselves; and they will help us by their example, provoking our emulation to make wider conquests in this inexhaustible field. In art, if anywhere, competition works least damaging results, for nowhere else is the stimulation of fellow workers more fortunately felt. This is true not only for the artist-designer himself, but indirectly instills this principle into the public mind thus making it sympathetic and eager toward the artist and his work.

Vocational guidance is as necessary for the art student as for any other. Portrait and landscape painting and monumental sculpture are not the only openings. In fact, not more than one per cent of the art students can ever make either artistic or financial success in these directions. At the same time the demand for well-trained workers along other lines is greater than the supply. The Art Alliance of America maintains a Placement Section which serves as a connecting link between those desiring to secure permanent positions in the art industries and the employers. The following are examples of positions open at the time of writing: (1) A prominent advertising house requires capable men and women as

members of the staff. (2) A lithographic house has openings for as many well-trained men as can be furnished. (3) Schools in various parts of the country are seeking capable teachers of the industrial arts.

Other privileges open to members of the Art Alliance of America include advance notices of competitions, special exhibition facilities, keeping a portfolio of their work at the Alliance galleries, the service of the Sale Section, and Press Service. The commission on sales is ten per cent for members while others pay twenty. Active Professional members with annual dues of five dollars acquire membership through their work being accepted by the membership committee. There is also a class of Associates open to everybody upon payment of one dollar, but this gives no privileges beyond receiving notices of exhibitions and competitions. The staff of experts is at the disposal of all to answer inquiries to the best of its ability. The variety of a single day's mail shows into how many channels the stream is penetrating and that many of the waste places in our vast country are beginning to blossom.

He who has dealt year after year with the steady human stream that pours into the classroom, eddies there a while and then rushes out and away beyond the ken of teacher, must have felt a misgiving more than once as to the value of giving into the current so much enthusiasm and effort. To every such teacher in the land the Art Alliance of America says, "We understand, we are with you; we know your problem and—we are working with you and for you. All that you have put into your work we are determined shall by no manner of means be wasted! We are here to help you and to be of service."

Inquiries should be addressed to Miss Florence N. Levy, General Manager of the Art Alliance of America, at 10 East 47th Street, New York City.

CRAFTSMANSHIP

WHO DRAWS A LINE AND SATISFIES HIS SOUL,
MAKING IT CROOKED WHERE IT SHOULD BE STRAIGHT?
AN IDIOT WITH AN OYSTER SHELL MAY DRAW
HIS LINES ALONG THE SAND, ALL WAVERING,
FIXING NO POINT, OR PATHWAY TO A POINT.
AN IDIOT ONCE REMOVED MAY CHOOSE HIS LINE,
STRUGGLE, AND BE CONTENT; BUT, GOD BE PRAISED!
ANTONIO STRADIVARI HAS AN EYE
THAT WINCES AT FALSE WORK AND LOVES THE TRUE,
WITH HAND AND ARM THAT PLAY UPON THE TOOL,
AS WILLINGLY AS ANY SINGING BIRD
SET HIM TO SING HIS ROUNDELAY,
BECAUSE HE LIKES TO SING AND LIKES THE SONG.

(Attributed to Stradivarius, the famous violin maker.)

Scissor Handicraft for Small Folks

HARRIET A. ELLIS
Springfield, Mass.

CAN you find a class of six-year-olds who are reading the *Dutch Twins?* Would you like to make some Dutch dolls? Perhaps we can also make a Dutch canal in the sand, with the dolls skating to school over the ice! Or if the youngsters are reading that delightful book, *Red Feather*, they would love to have a boy Indian paper doll or a little girl Indian to dress in campfire costume and playing at some of those fascinating occupations pictured in the book. And so with the Japanese, the Eskimo, and the other "world babies." Sand tables are nothing new or are paper dolls, but surely there is no happier way of teaching geography. And as our up-to-date museums present to us the different races in their respective habitats, so we may present to tiny tots the little figures and settings of their reading.

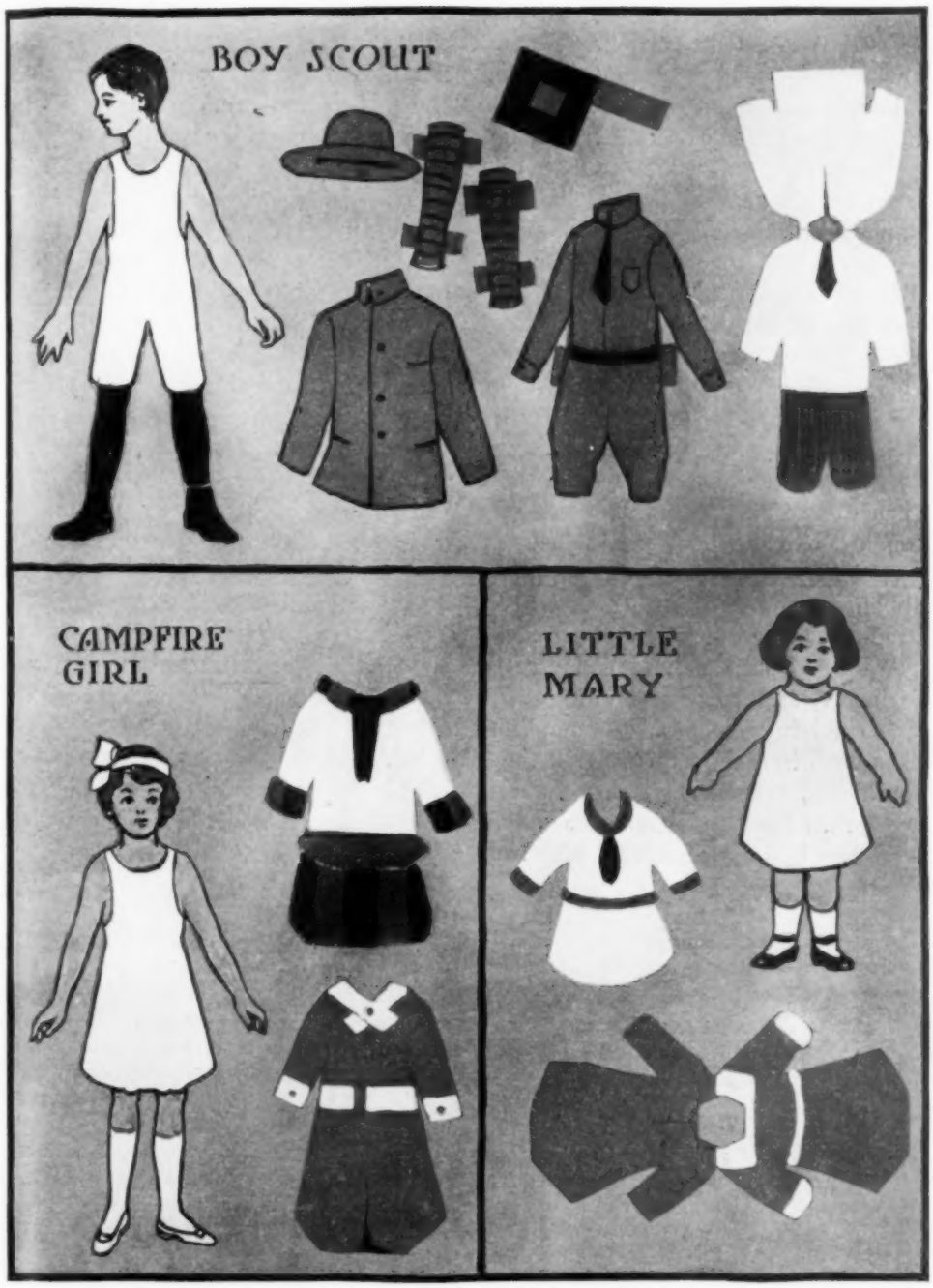
The dolls on the sand table may be real dolls to accord with the other objects in three dimensions, but much fun may be had by each kiddie in making his own paper doll. The Scantlebury dolls are ten-inch, bisque dolls authentically dressed to represent the children of six different nationalities, and prove useful models in making smaller dolls as well as delightful little visitors in any schoolroom. Then there are boy and girl scouts, red-cross nurses and other figures which may be costumed to give children skill in cutting, pasting, coloring, painting and design. Many suggestions for these costumes are given in those indispensable "Industrial Arts Books." Occasionally a foreign child has a native costume of her own and can "dress up" and show the others how.

It is so much easier for all concerned to follow a unit of study like this than to try numerous unrelated struggles in various mediums and on different projects. And do let's "have a good time doing it." Let's feel at rest regarding the time limit. Allow an extra week or more than you expect to need. Our "course of study" will not suffer. Teachers and children will wish to draw and then construct objects for the setting. They will love making action drawings of their dollies at work or play, of the boy scout in wigwag positions. They may enjoy drawing a landscape typical of the country, or a background for the figures.

The accompanying cut shows a girl and boy doll for each child to cut out. A suggestion here may be useful. Instead of beginning the cutting at one foot and continuing around the doll's outline, it has been found advisable to cut from toe to hand, to head, to hand and toe. When the large pieces have been clipped off, then with greater care cut away the intervening spaces. If the dolls are printed on light-weight paper, they may be pasted on strips of thin manilla tag, put to press immediately, and when dry, cut out as just suggested.

Tracing from the dolls for a dress pattern and then cutting, often results in such a "skimpy" dress or suit that

CUT-OUT PAPER DOLLS. THESE MAY BE DRESSED WITH GARMENTS MADE FROM COLORED PAPER AND THE DRESS DECORATION MAY BE MADE WITH CRAYON, PAINT OR CUT-OUT BITS OF COLORED PAPER



PAPER DOLL OUTFITS. EACH LITTLE STUDENT CAN PLAN AND CUT OUT OF PAPER A COMPLETE WARDROBE FOR THE FIGURE THAT THEY ARE MOST INTERESTED IN

poor dolly's arms burst thru her sleeves, or pettiskirts extend beyond her dress, while the boy dolls appear to be wearing bathing suits or jerseys of B. V. D.'s instead of romping clothes. By the use of the templet, we may trace several times until a good and generous dress foundation is made. The tracing might be done on paper tinted by the children or better still, we believe, on small left-over bits of cover-paper or mounting-paper, or perhaps wall-paper scraps. This should be a rather neutral tone, and low in value to prevent difficulties such as pale yellow for a khaki scout suit, or pink or light green for a coat. Then the tinted paper, which the children love to make themselves of brilliant hues, is just the thing for a gay hair-ribbon, a bead belt or feather head dress, a red-cross, or a scout's bandanna.

A good height for the dolls is five or six inches, and a business envelope for each child in which to keep materials when cut will save a great deal of time. For a gift, the envelope may have a stick-printed decoration, and the dolly's name may be written under the flap.

Bi-symmetrical figures are much the easiest shape to dress as the costume fits the doll whichever side is uppermost. If the face and arms are to be tinted with water-color, it is often a help to stand the doll on its head, and brush from the neck down over the face and hair. In painting the arms, begin at the top and brush out over the hands, having a piece of paper underneath where the brush strokes run over the edge. If the face is painted first it will probably dry by the time arms are done, and any shade of hair color may then be mixed and applied from the forehead downward over the head, doll in reverse position as at first.

Our educators in authority caution us against "judging children's work from an adult standpoint." Perhaps, then, though the little costumes are sometimes laughable, we may accept the crude result as the little child's honest achievement. We will not be too anxious to hold his hand that he may produce the aesthetic result of a Junior High student in costume design.

HOW DEFINE ART OR LABOR? WE MIGHT DRYLY ATTEMPT TO SUM UP THE ARTIFICIAL DISTINCTIONS BETWEEN THEM BY SAYING THAT—(1) ART IS THE INVENTIVE USE OF TOOLS AND MATERIAL. (2) LABOR IS THE MECHANICAL USE OF TOOLS AND MATERIAL.

BUT ON EXAMINATION (REGARDING THE WHOLE FIELD OF HANDICRAFT) THE TWO WOULD BE FOUND TO BE SO CLOSELY CONNECTED—SO MUCH ART OR SKILL IN EVEN THE SIMPLEST OPERATION OF LABOR, SO MUCH LABOR INVOLVED IN EVEN THE SIMPLEST FORMS OF ART—EACH SO INVOLVED IN THE OTHER, THAT IT WOULD BE VERY DIFFICULT TO DRAW THE LINE AND TO SAY WHERE LABOR ENDS AND ART BEGINS.

—WALTER CRANE

Handicrafts for Wayward Boys

[ARNOLD LEVITAS]
Instructor of Typography at the College of the City of New York

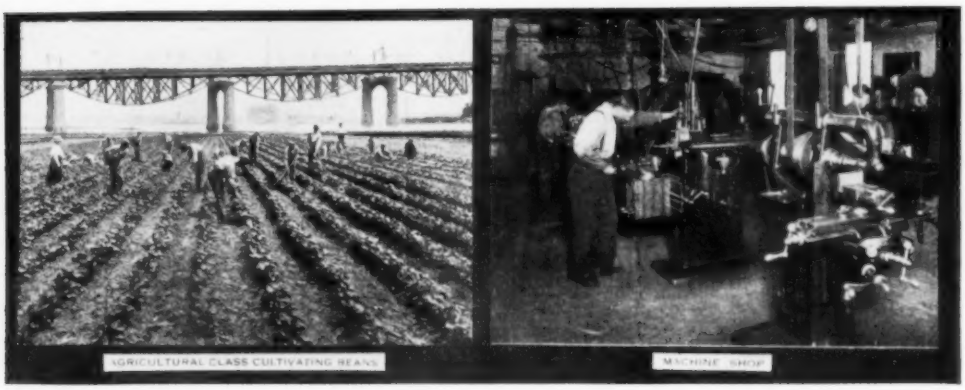
ALMOST efficient way in which to take care of the misguided boys entering an institution of the reformatory type is being worked out by the authorities of the New York House of Refuge on Randall's Island, in the Borough of Manhattan. This method does not consist of punishment, nor entirely of military discipline—both of which may enter into the plans—but through the attempt to properly prepare boys for a future career by means of effective education; through segregation as relates to separating the younger and more innocent boys from the older and more wayward ones; and, above all, through demonstrating to each boy that he is getting a "square deal."

This is a state institution, controlled by a board of managers, of which Mr. Isaac Townsend is president. The governor, the comptroller, and the attorney-general are managers *ex officio*. Col. Edward C. Barber, who is the superintendent, is a man of wide experience in this work and knows boys. My conversation with him convinced me that the managers made a wise selection when they placed him in charge of the institution. I spent nearly a whole day at the Refuge, and the foregoing opinion was confirmed.

Approximately 680 boys are cared for. The House of Refuge also operates a farm site of 450 acres at Yorktown Heights, N. Y., and maintains a vast expanse of garden at the rear of the institution on Randall's Island. For farming and gardening, the effort is made to select boys who come from rural districts.

All boys received into the institution are committed by the courts of the state. During the year ending July 31, 1919, boys came from thirty-four different counties. In this institution there is no provision, such as dark cells, isolated cells, etc., for "locking boys up." The divisional system seems to care for that contingency. The superintendent contends that he has in his charge some boys whom it is better to separate almost entirely—for a short period, at least—from other boys, and several divisions have been created, of which the "F" division takes care of the most difficult cases. I observed this division of boys at work in operating the engine and hoist in unloading coal from a barge anchored alongside the Refuge dock. Approximately twenty-five boys were at work. I saw only one officer. Some boys were working two hundred or more feet away, and all seemed happy. The boys of this division are not always doing that type of work. Some have worked in the institution shops, and other departments, or will work in them when re-assigned. Others will go into farm work, either at the Refuge or at Yorktown Heights.

The boys are organized into a regiment, properly officered, and militarily listed by the State of New York as the 103d Regiment, Corps of Cadets. The colonel, majors, captains and regimental adjutant are employees of the institution. A full military band, under



direction of a band-master and an assistant, is maintained. Col. Thomas F. MacNulty, a lieutenant of the State Guards, is the military instructor, and acts as colonel of the regiment.

At the rear of the institution there is an excellent and spacious parade ground. This was formerly a sunken marsh, over which the tides ebbed and flowed. The superintendent spent several years in filling in this vast expanse of waste, and today the results of this work are truly wonderful to behold. One can compare this enormous task to that completed by the Government on Gouverneur's Island. Considering the means at the disposal of the superintendent, his task was as great as that of the Government.

A parole and investigation department is maintained. Mr. Frederick C. Helbing is the chief parole agent. Seven men are employed in this department. The superintendent contends that every boy, before being paroled, should have a "job" to which to go, and should be "on the job" immediately after leaving the house. That is the rule. One of the duties of the parole department is to see that work is provided. Positions are secured by the institution in most cases. If employment is secured by friends or parents, the parole department investigates the prospective job. If the work is suitable, and all conditions are what they should be, the boy is allowed to take up the work.

Training is afforded in the following stated trade classes and occupations for vocational education:

Baking and Cooking.
Boy's Kitchen.
Teacher's, Matron's and Officers' Dining-room and Kitchen.
Barber Shop.
Class in Blacksmithing.
Classes in Carpentry.
Electrical Class.
Farm and Garden.
Class in Horticulture.
Laundry Work.
Machine Shop.
Forge Practice.
Tin-smithing
Hospital.
Masonry.
Painting.
Military Band.
Wall Painting and Decorating.
Photography.
Telegraphy.
Plumbing.
Printing.
Shoe-making.
Steam Fitting.
Electrical and Steam Engineering
Tailoring, Clothing.
Stenography.

The educative work comprises a graded school of the type of the common elementary school, with vocational education a feature. Miss A. M. Arnold is the principal. The staff consists of a vice-principal and eighteen teachers, including a teacher of music. Two lessons a week are given to all pupils.

Mr. Howard E. Parker, second assistant superintendent, is the vocational director. The aim is to train intelligent workmen—such as will have an assured future when they leave the institution. The Refuge authorities recognize that, in order to prepare efficient workmen, it is necessary to include in their program an academic education; but they also realize that this education will be most helpful when it is made to fit particularly the needs of the trades—first, as a general educative influence; and secondly, as a theory for some particular activity.

As evidence of the superior quality of this type of education over that of the ordinary public school, it may be stated that in the latter institution the academic courses are so independent of any practical application that a good deal of the knowledge gained there is soon forgotten.

The insufficiency of the average grammar school education is particularly noticeable in the schools where boys of the seventh and eighth grades are sent to trade classes for industrial training. Their impracticability and helplessness during the first few months is quite apparent, and it is due to the fact that their fundamental education has been devoid of any practical elements. They gradually apply themselves, however, and slowly lose that awkwardness. In time they not only become proficient in their work, but improve also in their academic studies.

At the House of Refuge an effort is being made to ascertain just what to teach as related to the common branches. With that end in view, everyone connected with the schools there is studying boys and the economic and vocational conditions and methods. They take note of boys' weaknesses as related scholastically to any subject; his fluency in oral and written expression; his general efficiency and inefficiency. They are attacking the English proposition in a very practical manner. One of these lessons provides for the pupils' standing before the classes and orally expressing himself. They recognize that it will be "up to" the boys at times to "talk up" for themselves. The problem of teaching the geography of the United States is being worked out

by means of their own original outline. I was informed by the director that he believed they would materially improve on this method in another year; but they have conceived a project as relates to this subject which appears to me to be the most practical method of dealing with geography with which I am conversant. The method brings response on the part of the pupil. They are now attacking history in the same way—pooling the ideas of the entire staff.

All the mathematics for the elementary grades are practical—board measure, applied to the practical work of the institution; excavating, practically applied; masonry, stone and brick. Much practical work is performed as relates to masonry. One method utilized for culling mathematics was to send a teacher to one of the shops to compile arithmetic on that particular trade, because much work was under way in the shop. When she had arranged same in proper form, copies were made for use in each class in school.

The plan for vocational education is being worked out systematically, and affords the most practical type of learning. Four teachers teaching a vocational subject as their regular academic work were found to be at work with their pupils.

When the boys intended for a certain trade training have acquired a considerable knowledge of trade operations, they are organized into a class for regular academic work as applied to that trade. The teacher is not only teaching the mathematics of the trade, but English, history, geography, etc., as applied to it. In her class room she has various concrete illustrations of material and tools used in the trade. Boys employed in the carpentry classes, masonry, electric work, printing, etc., are receiving the same type of instruction. These pupils also receive instruction in the type of drawing appropriate for various purposes, as architectural and mechanical. Another male instructor teaches free-hand drawing and art.

The shop instructor and the academic teacher work in harmony. For instance the beginner in the printing class receives practical instruction, and some theory there. The same pupil in the academic room is instructed in theory befitting his work as a beginner in the trade. Practical instruction is also afforded the pupils in the graded classes. These teachers are organized into a drawing class, and the teacher of drawing conducts lessons at frequent intervals. In turn, the teachers take up drawing with their pupils. The teachers are constantly in touch with a competent superintendent of construction. They can read and draft more or less complicated plans.

These methods permit of the teachers becoming sufficiently proficient, so that they can go before their classes and evolve problems then and there. They can compute the time required to remove the earth from a plot of ground. If walls are to be erected they know the method for computing costs, etc.

In the classroom there exists an almost perfect deportment. One of the teachers remarked: "The boys give me a square deal because they are getting a square deal from me." The sympathy which exists between teachers and pupils is something not usually found in the average public school. The teachers like their charges, and do everything possible to create agreeable conditions. They actually seem to be consci-

entiously interested in the future of the boys, and in their welfare; and this spirit is manifested throughout the institution, from the superintendent down.

One of the interesting features of the classroom is the reading by the teacher to the boys of such news from the daily papers as she finds would be useful to them. Thus they receive the proper kind of information. The work is correlated with history, geography, etc. For instance, during the world war, maps were drawn by boys in the drawing classes. These maps were then blue-printed and used in the classrooms in connection with the news. Present day maps of Germany were made. Maps were also drawn in connection with ocean flights by aeroplanes and dirigibles.

The periodical, "Current Events," is used in a very practical manner, as much work in English is based on current events. The boys are given an opportunity to discuss the matters that come up, and are thus helped to develop confidence and mentality. Boys may read "Current Events," but daily papers are forbidden them. However, pupils may take books and magazines to their dormitories. There they may read until 9 o'clock in the evening.

The institution maintains a large steam and electrical power plant. An artificial ice plant supplies all the ice required.

The vocational classes are accomplishing a large amount of practical work. One instance may be cited. During the year a brick addition to the power house was erected. The boys employed in the trades represented by the work required, under direction and supervision of their vocational instructors, erected the structure. The same would have cost approximately $4,000. When the work was completed the instructors in steam and electrical engineering installed a large new engine and dynamo, the electrical class contributing. An entire rearrangement of two old engines and dynamos together with the transfer of the ice machine was effected. The installation of the new machines and rearrangement of the plant on contract saved the State many dollars. While this work was under way, pupils in the trade classes represented were kept constantly on the job.

To detail all the practical work accomplished at the House of Refuge during the last year would require many pages of this magazine, but they furnish nearly all the work necessary to keep building and all machinery in good condition and repair.

Practically all the vegetables for the tables of the teachers, officers, and matrons, as well as the boys, are supplied from the garden of the Refuge and from the farm at Yorktown. A bakery is maintained which supplies everything in that line. All clothing, except shoes and socks, is made at the institution.

The many activities of the institution furnish an incentive for industry. The routine and trade work of each department is organized into graded steps or stages of progress, from the simplest and least difficult task to the more complicated problems. These graded stages serve to act as guides to present routine shop work and practical repair work of the institution and as motives for the new apprentices and for those who are advancing.

Just How to do Batik Work

PEDRO J. LEMOS
Stanford University, Calif.

WHILE there has been considerable said and written about batik dyeing and batik designs, the general impression gained by teachers has been that it is successful only in the hands of these who have much to do with textile decoration. This is not so for the process is a very simple one and beautiful results may be attained by beginners. At the same time for those who wish to carry on more extended applications and complicated designs the process of batik dyeing holds out great possibilities. On these pages two methods are therefore given,—one for those who wish to do simple batik work with the regular dyes, and one for those who wish to do work that requires the permanent dyes and greater care in the working.

The word "batik" is Javanese and means "to paint." Java, a Dutch East Indian island, practiced this beautiful textile handicraft for two thousand years and it has come to America through Holland and England where it has been used by Dutch and English designers for some years.

The process as worked by the Javanese is briefly described as follows: Cotton cloth is covered with a wax pattern, the wax for this work flowing from a small copper tool ("tjentang") with a fountain which is held in the hand. The fabric is then dipped into a cold dye, and afterward boiled in hot water. The wax or "resist" prevents the dye from affecting the parts it covers and the boiling then melts the wax off, resulting in a white or light tinted pattern on a dark or shaded background.

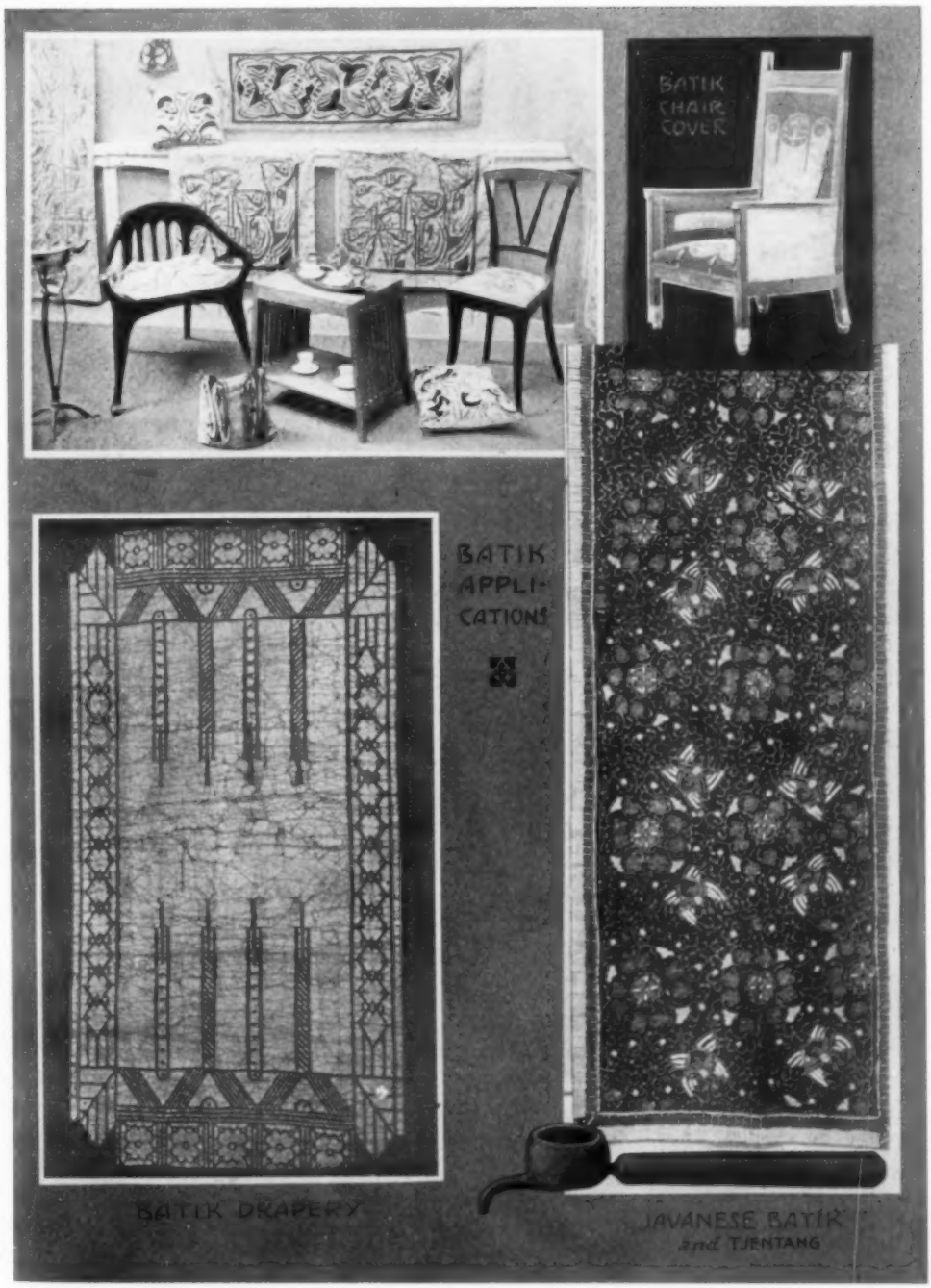
The Javanese use indigo blue and golden brown as colors. Where the colors are permitted to go over each other a black is produced; where the resist remains through the dippings it remains white. Thus the final colors are indigo, brown black, and white.

Those who wish to use the "tjentang" will find that it will produce results dependent upon the practice of the worker. The thumb pressed over the cup containing the wax operates by vacuum the flow of the wax. The "tjentang" is heated to keep the wax melted and of a consistency so that it will flow. Many craftsmen prefer to apply the wax with a brush, and to the beginner this presents the better method.

The following directions give a *simple* method of doing batik work.

Design. Plan a design in light masses on dark, so that the pattern is composed of bold lines and parts. Trace the outline of this pattern onto cloth, cotton or silk, and outline firmly with a soft pencil.

Wax Work. Stretch the cloth over a frame or picture stretcher. Melt a wax of the following parts:—one-half part parafin, one-half part beeswax. Apply to the design with a brush while the wax is melted so that it will flow easily from a brush. This wax can be melted



BATIK APPLICATIONS MAY BE AS PRACTICAL AS THE CRAFTSMAN WISHES TO MAKE THEM. SERVICEABLE CHAIR COVERINGS AND OTHER MUCH USED FABRICS MAY BE PRODUCED BY DECORATING DURABLE MATERIALS

over a gas burner or an electric stove. The wax should go clear through the cloth. It will be found that the pencil outline will prevent the wax from spreading.

When the design has been covered, any part visible from the under side that remains uncovered is touched with wax and the cloth is removed from the frame.

Dyeing. Diamond or easy dyes are dissolved and boiled according to the directions on each package. When the dye is cold or nearly so, the cloth with the wax pattern is crumpled up and dipped into the dye. After it has been well immersed it is taken out and dried. When dry it is placed on newspapers and pressed with a hot iron which will remove most of the wax. To remove the rest of the wax, it is washed or brushed with gasoline. The crackle throughout the light parts is produced by the cracking of the wax and gives a quality to the finished design which is one of the charms of batik. Different effects and various colors in one piece of batik are secured by dippings in different dyes, different parts of the designs being covered between different dippings.

This kind of batik work, of course, is not permanent if washed and for those who wish to work with permanent dye, the following process is given. After the cloth is waxed, the dye bath into which it is dipped must be made from a sulphur dye. This is made as follows:

PART 1

¼ lb. of Dye Stuff (Sulphur Dye)

¼ lb. of Sulphide of Soda (concentrated)

Dissolve, using only enough water to allow solution to become clear. Bring to boiling point.

PART 2

Sal. Soda (½ weight of Dye Stuff or ⅛ lb.)

Salt (3 times weight of Dye Stuff or ¾ lb.)

Add to 2 gallons of water.

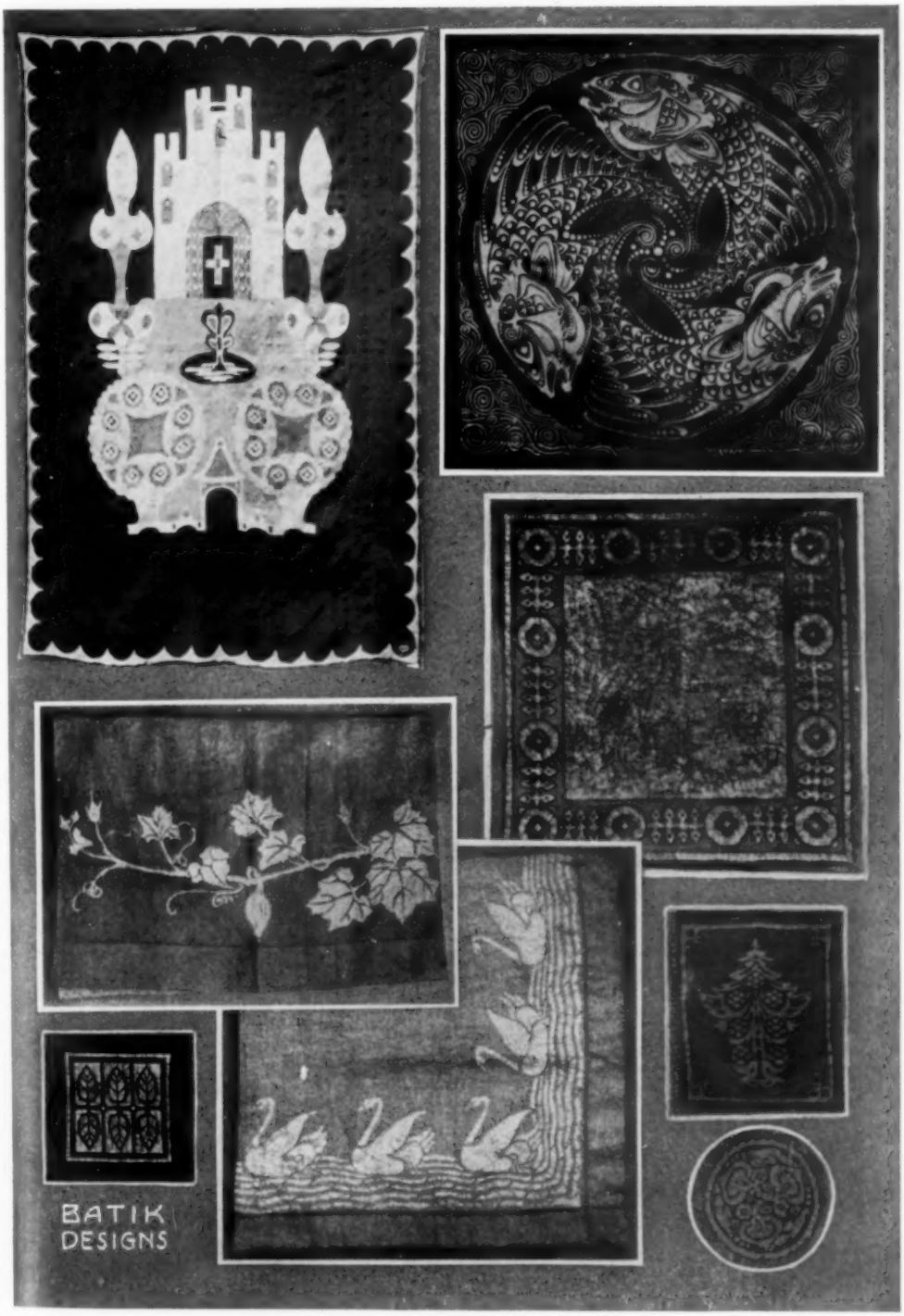
Part 1 and 2 are added to each other and boiled until dissolved. Cloth is dipped when bath is cold. No brass or copper kettles should be used. Enamel, wooden or ironware vessels may be used. When the cloth is removed from the bath it may appear fainter than its permanent color, but should be hung in the open air and permitted to dry. The air will darken the color and help make it fast. When thoroughly dry the cloth may be boiled in hot water to release all the wax from the cloth without affecting the dye. The wax may be skimmed and used again.

The Sulphur dyes or Thiogene dyes may be secured from Metz and Co. of New York City and come in hues of yellow, blue and brown and green. Light shades require more sodium sulphide and less or no salt.

The vat or indigo dyes are also good to use and acid dyes or basic dyes with acetic acid are very convenient. The supply houses will inform the purchaser how to prepare these dyes.

Wood may be used for batik work and leather is beautifully enriched with batik, the wax being removed with a hot iron and blotter, or gasoline. Acid dyes with a little acetic or formic acid should be used for wood as they will penetrate the wood more easily than other dyes.

Batik work may be easily abused as stencil work has been for a number of years. Both stencil and batik may be a beautiful art in the hands of a true craftsman.



BATIK DESIGNS BY STUDENTS AND CRAFTSMEN WHICH SHOW THE NATURE OF BATIK PATTERNS, REQUIRING BOLD PATTERNS AND PLEASING FORMS

A New Crafts Problem

JOHN T. LEMOS
Polytechnic High School, San Francisco

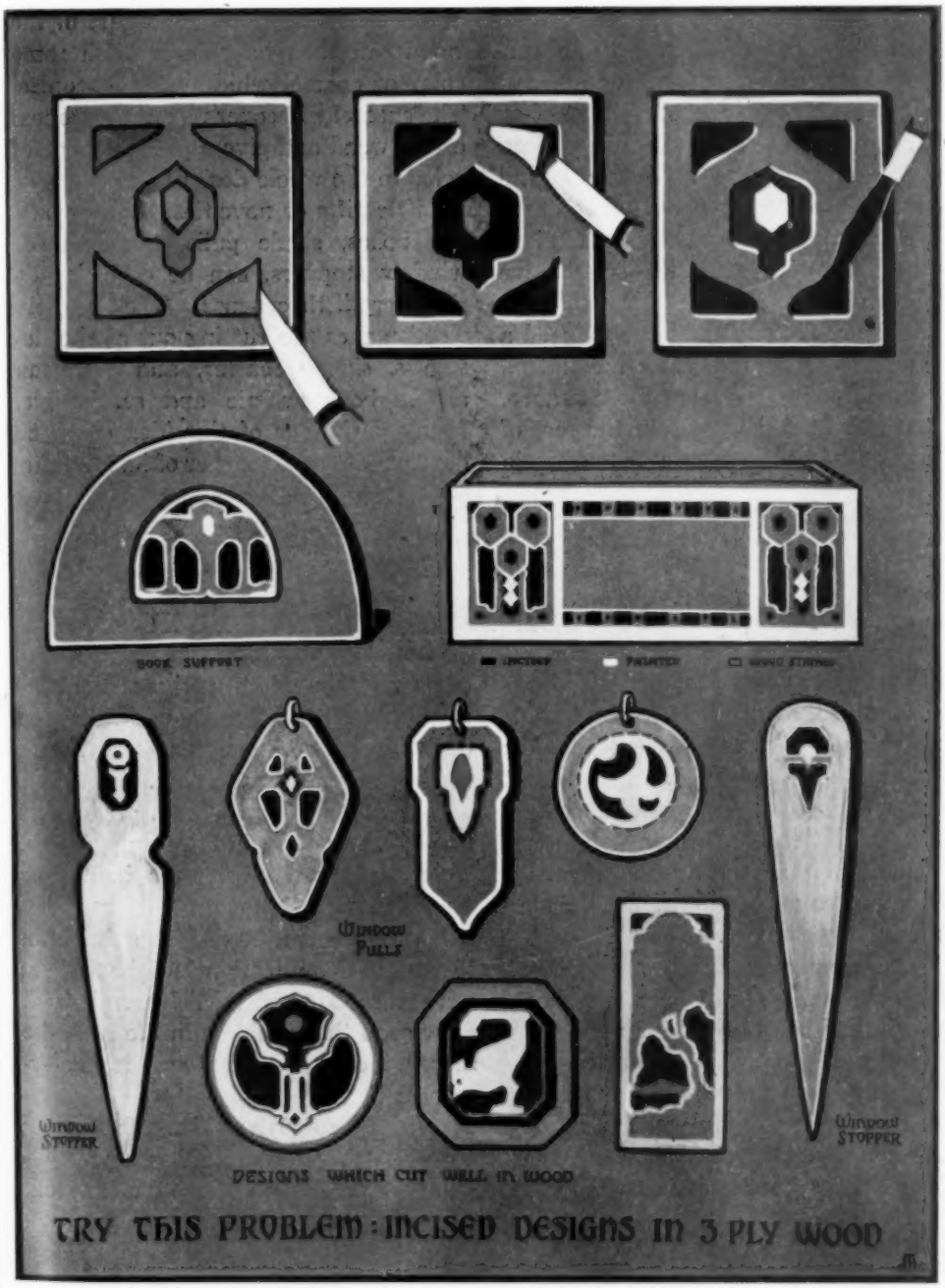
OF ALL the handicrafts in the school programs, that of woodwork is one of the most satisfying. Not only does woodwork permit an almost unlimited variety of problems but it is a clean medium with which to work. No one but a high grade pessimist would ever think of shavings as being dirt, for instance.

Woodwork appeals to most students, particularly boys, so strongly that classes in this department are generally over-crowded. In schools having both the manual arts and drawing departments splendid correlation is possible in relating the students' design to their woodworking. Oftentimes, the crafts teacher may find that she is able to plan out a problem in which the design students who do not have access to the woodwork department may work out little problems in wood right in the classroom. A series of such ideas is shown in the accompanying illustration.

If you have never become acquainted with three-ply, veneered woods, don't miss your next opportunity to do so. They are unequalled for results in such work as toys, and novelties and the smaller crafts problems. Being made of three separate pieces of wood glued together with hot glue under a tremendous pressure, they do not warp and split in several directions as ordinary thin wood might under the same usage. The fact that these three-ply woods *are* made of three separate pieces allows for a new problem which may be successfully carried out in the handicrafts classes.

First purchase a sheet of three-ply poplar, oak or gum. Any one of these will work well and has a good grain. Next have the students design on heavy paper the various things they would like to make, such as those shown in the illustration. After these are finished, they may be pinned up on the board and the best ones selected for their general pattern. If the school has a woodworking shop then these patterns may be traced off on the wood and cut on the bandsaw. If there is no such opportunity, the students could be allowed to cut them out with a little coping saw by hand. As most of the patterns are simple, this would not be difficult.

In some cases where there is quite a number in the class and the school has no woodwork shop, the teacher could send the wood to a mill and have all the outside patterns cut out at one time. This could be done very inexpensively by planning to use say half a dozen varied patterns and then having about six layers of wood cut out at once on the bandsaw. This much being done, each student should then take the pieces of wood he wishes to work out and plan a simple design to fill them. The work *simple* should be emphasized for two reasons. One is that the simple designs are generally the best, and the other is that elaborate ones are too hard to cut out of the wood successfully.



THREE-PLY WOODWORK PROBLEMS. A NEW APPLICATION SIMPLE IN EXECUTION AND ADAPTABLE TO GRADE OR HIGH SCHOOL APPLIED ART WORK. A SLOYD KNIFE, PAINT, AND STUDENT WITH THE WOOD COMPLETE THE EQUIPMENT

Having decided on a good design, this may be traced out on the wood surface. Next take a sharp knife and cut down around the edge of the design. Be sure to have the students cut deep enough so that they reach the second layer of the three-ply wood. When they have done this, they can take their knives and lift the parts they wish to remove right out of the design. When this has been done, the student has produced a design in which some parts are incised or sunken below the level of the surface.

To finish off the problem the rest of the wood may be given a coat of stain and shellaced. The incised part of the wood can then be painted with some color of enamel which will harmonize. The enamel will cover up any roughness of the wood and give a pleasing spot of color to the whole design.

Little gifts or novelties, such as button boxes, shade pulls, bookends or window stoppers, can be easily made with very little expense. The three-ply wood makes the cutting out of the design a simple matter, and gives an article both artistic and serviceable. Many variations of this idea could be developed by the teacher of handicrafts.

Harmony Between Design and Textiles

THE other day I saw a woman buying silk thread to embroider a coarse porch pillow. The clerk told her it was all the style. Is that not typical? Why not go to the source of the difficulty—and teach harmony between design and textile in the schoolroom.

"Our school board will not furnish material," you reply.

Have you ever tried *gunny sack!* Any child could bring one to school, and with it bits of bright yarn left from Mother's knitting. What effective, yet simple, articles can be made from it!

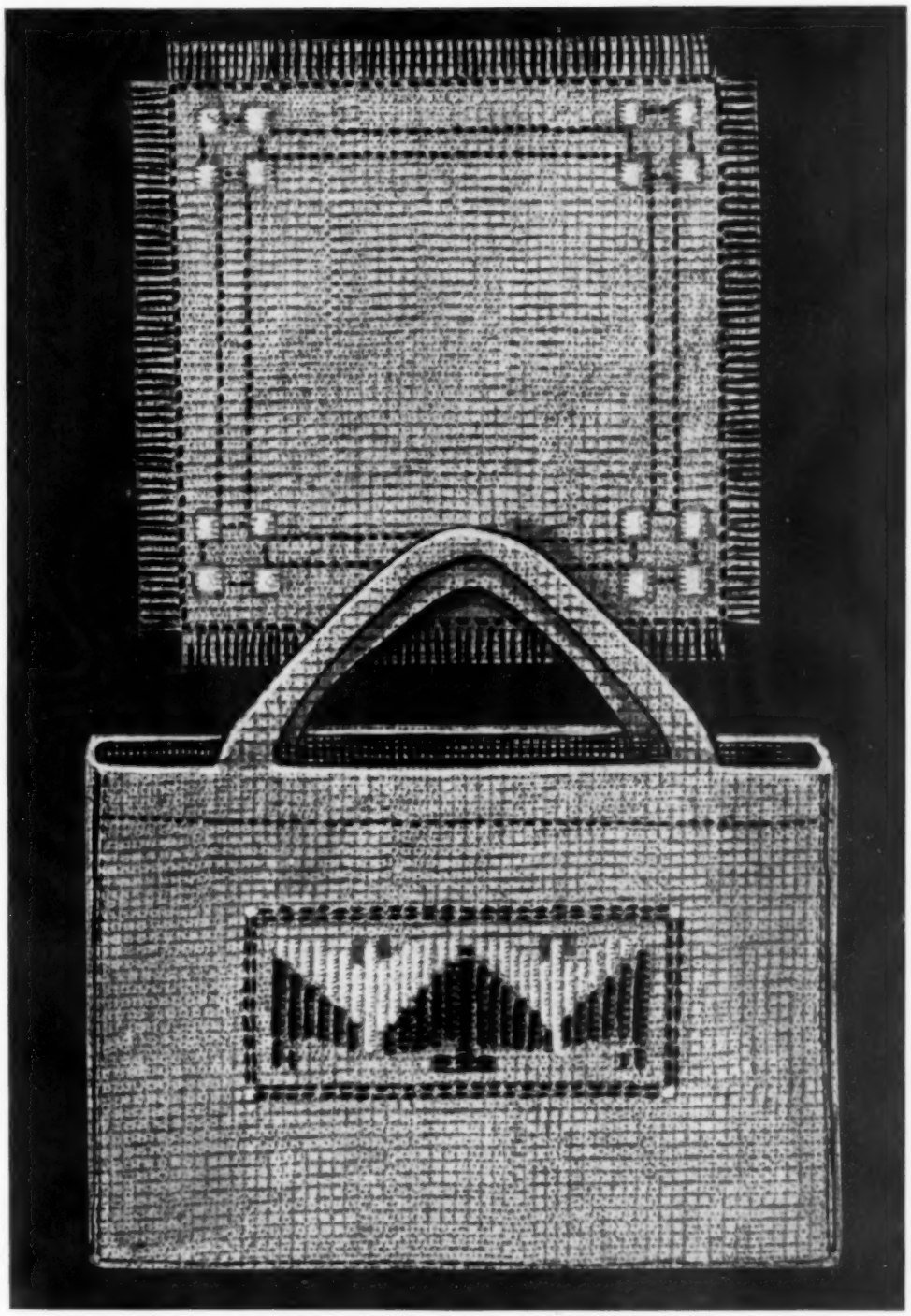
One very successful problem presented to a fourth grade class was that of enriching a porch mat with a border of yarn. The stitch used was the running, which serves the double purpose of producing harmony and persuading the boys they were weaving.

The seventh and eighth grade girls made unusually interesting pillows. Then there were bags for books, or sketching material.

Not only were the designs suitable in texture and application but the articles were finished in a way which harmonized. How soon that problem in life could be solved, if each child in the grades understood it!

DOROTHY MILNE RISING,
Bellingham,
Washington.

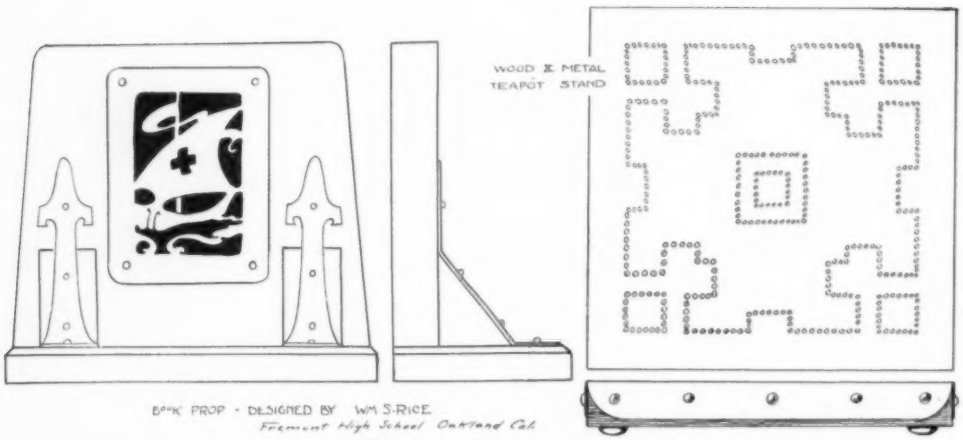
IT IS BY WORKING WITHIN LIMITS
THAT THE ARTIST REVEALS HIMSELF.
—GOETHE



BURLAP HANDICRAFT. ARTICLES MADE OF "GUNNY SACK" BY STUDENTS UNDER DIRECTION OF DOROTHY MILNE RISING OF BELLINGHAM, WASHINGTON, AND EXPLAINED ON THE OPPOSITE PAGE

Two Interesting Problems in Wood and Metal

WILLIAM S. RICE
Fremont High School, Oakland, Calif.



Problem 1—Teapot Stand

Materials Needed:

1 sheet of 30-gauge copper, or brass 7¼″ square.

20 copper tacks, round head.

4 upholstery nails, brown.

A nail of medium size, the point flattened with a file, to be used as a punch.

A 6″ square block of pine ¾″ thick, stained brown.

Mallet for punching design.

A smooth pine board to rest the metal on while *repousséing the design.*

Working Directions:

Use simple, straight line, geometric designs for first attempts. Paste the design on under side of metal and tack the copper down with four tacks on a pine board. Then punch gently with the nail, making a series of regular little dots which look like beads when the metal is turned right side up.

Bend the two opposite flaps in the vise, then slip the 6″ block in; and bend the remaining edges on the block by resting it on the surface of the anvil or a smooth board. Then tack the metal down to the block, making the holes first with an awl in order to keep them regular. The corners need to be slightly filed; and then, four upholstery nails are tacked under the block for legs. The copper may be dipped into the coloring solution, or not, just as one prefers. These stands are just the thing for setting hot dishes or teapots on. They are light and do not break when they fall on the floor, as tiles are likely to do.

Problem 2—Book Props in Wood and Metal.

Materials Needed:

Oak wood ¾″ thick and ⅝″ thick and ½″ thick for the book props and braces (2 pieces of each thickness.)

20 gauge copper for the plate and the straps.

A piece of ooze leather, violet, green or navy blue, to place under the saw pierced design.

2 doz. copper tacks, round heads.

HAMMERED, ETCHED, AND APPLIQUÉD METAL WORK BY THE STUDENTS OF THE FREMONT HIGH SCHOOL OF OAKLAND, CAL., UNDER THE INSTRUCTION OF WM. S. RICE

Working Directions:

Stain the wood a dull gray brown, and color the copper with liver of sulphur a deep brown tone. The metal must be colored and waxed before tacking it over the leather background.

The design is saw pierced. Subjects suitable for this treatment are trees, windmills, ships and simple landscapes, birds, or monograms. Raise design slightly by tapping on the back of metal, resting it on a wooden block. The treatment of the subject must be similar to a stencil design, or the dark and light decorative landscapes seen in many of the drawing books in use in schools or in back numbers of the SCHOOL ARTS MAGAZINE.

Paper Handicraft

CLIPPING CASE

THE aim of the lesson was to secure accuracy in measuring, cutting and pasting, to teach fitness as to purpose in proportions, form and suitable materials as to strength and color, as well as appropriate decorations.

First, we considered the necessity for the clipping case—a container for newspaper and magazine clippings. Then we made suggestions for an envelope as would be practical, in its strength, size, form and color. The envelope was developed as a community problem and than dictated for accuracy in measuring, cutting and pasting.

Decorative covers were then planned to protect the envelope and make the container more beautiful. Suitable cardboard was selected, and tinted papers used for covering, lining and decorative units. The board was cut large enough to project ⅛″ beyond all edges of the envelopes. The outside covering was made large enough to project ½″ beyond edges of the cardboard for pasting laps on the back. The lining was cut ½″ less than the boards to prevent projections on the finished covers.

After the covering and lining were pasted into place, a center field of decoration was planned and suitable flower or leaf units chosen for the decorative units.

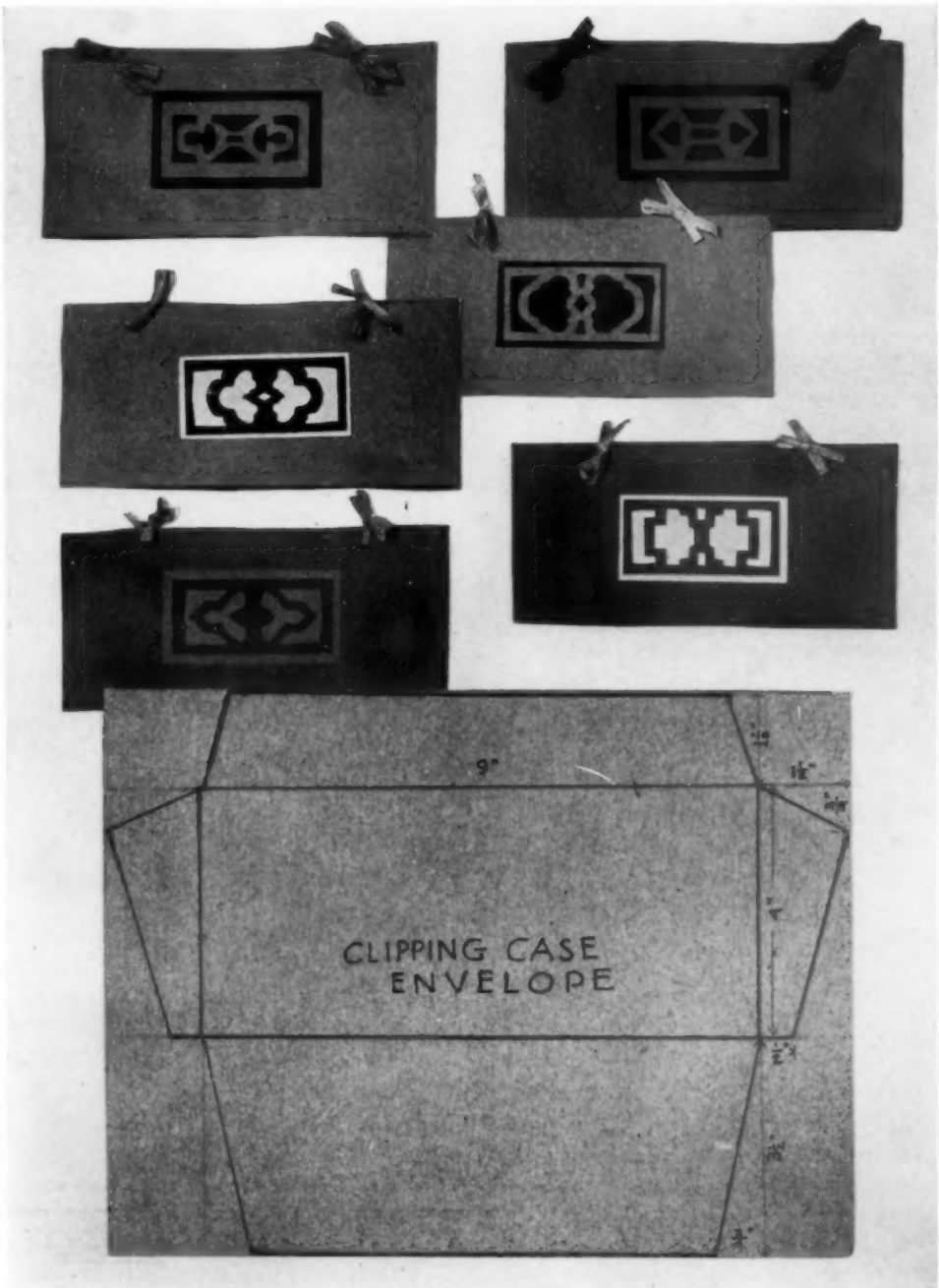
A suitable paper was then cut the size of the field of decoration and folded on both diameters to make it one fourth of its original size.

Blocks of paper were then planned for well-balanced units and folded on their diameters. One half of the desired unit was then drawn and cut. These patterns were then wrapped around the center section of the paper planned for the field of decoration, traced, and then the units cut out. Rythmic units were then drawn and cut to complete the decorative oblong.

The decorative oblong was often the same or a tint or shade of the cover color with a contrasting color cut ⅛″ larger on all sides of a value which would prevent a very strong contrast. An object should always be recognized before decorations are noticed, and a strong contrast would violate this law.

As all details affect the design, so the punching of the holes was carefully planned to balance with the entire decoration and narrow, cotton tape was colored with crayola to repeat a color already used in the outer covering or decorative units. The size of the tie was also planned so as to keep the cover decorations the center of attraction.

M. MATILDA MIETT,
Syracuse, N. Y.



A USEFUL CLIPPING CASE, DECORATED WITH CUT PAPER DESIGNS. WORKING DIRECTIONS ARE GIVEN ON THE OPPOSITE PAGE BY M. MATILDA MIETT OF SYRACUSE, N. Y.

Jewelry Etching

How to Do It Professionally

WHENEVER etching of copper or silver is suggested as part of a school problem, the use of nitric acid immediately comes to mind, and to those who have made much use of nitric acid the problem does not convey much enthusiasm.

Nitric acid as an etching solution is reliable if handled properly and regulated on an orderly system. The usual student is told to use half and half of nitric acid and water and he does so. If on examination the etching does not appear to be traveling fast enough, he pours in some more acid and because this appears to be effective he decides that "more is better," and adds another dose. Then the teacher decides that etching is not practical as a school-room problem, since the work comes out all under-etched and spoiled.

To secure absolutely sure results with charming surface enrichment of metal, jewelry or copper craft, I suggest the following steps, which will eliminate all troubles and which is the method employed by professional craftsmen. Teachers who wish to secure professional standards in their handicrafts must adopt professional care and system.

Silver and Brass Etching. If the silver is to be hammered, the hammering should be completed before the design is traced. After the hammering is completed the surface should be well cleaned with wet cloth and whiting. A slight rubbing with ammonia on a cloth will remove all grease from the surface. The design is then traced on with carbon paper and all portions not to be etched should be covered with a resist paint. This paint is made by mixing turpentine with asphaltum varnish, used thin enough to flow from the brush easily. The edges and backs of the silver should also be covered with the resist paint and the paint permitted to dry over night before being placed in the acid.

To etch the silver place it in a solution of 1 part acid to 2 parts water with the design part upward. The acid will attack the exposed metal and etch it, the product of this reaction partly escaping in the form of little gas bubbles that rise to the surface. (Breathing the fumes of nitric acid is undesirable.) After twenty minutes the metal should be removed and rinsed under water and the etching examined. If not deep enough it may be immersed again for another ten minutes. After the etching is completed it is taken out, rinsed under water and the resist paint removed by cleaning with gasoline and cloth. Silver may be darkened by putting it in a hot solution of liver of sulphur, and if the surface is slightly polished it will burnish the relief parts accenting the hammered parts.

Now the above method describes how to do shallow etching, but if the etching is to be deep or enameling is to be added later, the best method is to proceed as follows:

Deep Silver and Brass Etching. After the silver is prepared ready to enter the acid bath, the bath is prepared as follows. An acid proof tray (box lined

1 The tracing onto metal
2 Next the asphaltum paint
SILVER and BRASS ETCHING
ASPHALT PAINT
3 The plate is then etched
NITRIC ACID
4 Powder is brushed on
5 The powder is burned in
6 When plate is etched it is cleansed with gasoline
COPPER ETCHING
The copper plate is slipped into the acid
Clay rests
Plate is upside down
PERCHLORIDE OF IRON

METAL ETCHING BECOMES AN ASSURED SUCCESS WHEN THE EXPOSED EDGES ARE POWDERED AS EXPLAINED IN THE ACCOMPANYING ARTICLE, BEFORE DEEP ETCHING TAKES PLACE

with roofing paper or a developer tray) is arranged so that it will rock. The metal is placed in the center of the tray so that it will be temporarily stationary. A solution of one to two of acid and water is placed in the tray and rocked back and forth so as to flow over the silver. A rubber-set camel hair brush is used to rub the surface of the metal to clear the etching. After it has been etched about the thickness of a visiting card, the plate is removed, rinsed and dried. The next step is the powdering.

Powdering the Metal. A box containing about a pint of dragon's blood or topping powder, resinous powders used by photoengraving and etching firms, is arranged so that the plate is placed in it and the powder brushed with a soft brush across it in one direction so that it will "bank up" against the etched shoulder of the metal design. The brushing should clear all powder excepting that against the shoulder. The plate is then placed carefully over a flame and held there until the powder melts and protects the vertical side of the etching so that when next placed in the acid, the acid will not undercut. This powdering is repeated three more times so as to protect the four directions or sides of the etched portions.

The plate is then placed in the bath again, a third of the first quantity of acid is added to the bath and the etching is continued.

This process is repeated each time the etching bares or exposes more vertical metal until the required depth is obtained. If the surface has been well protected with the resist paint and the powdering has been repeated each time carefully, the plate upon being cleaned will be found to have perfect surface and perfect edges throughout and whether enamelled or not the pattern will result clean and regular.

Copper Etching. Instead of using nitric acid for copper, perchloride of iron (solution) is preferable. The bath is used continuously until it is black and its strength therefore gone. The copper plate with design in resist paint is placed face downward in the bath and etched without rocking. The illustration shows shows how to hold the face of the plate slightly above the bottom to insure action of the acid. The position of the plate is upside down to permit the resulting precipitate of iron particles to settle to the bottom. For deep etchings the copper should be removed, rinsed and powdered similar to the deep silver etching although the iron acid has a tendency to etch vertical more than the nitric acid. In placing large copper surfaces into the acid they should be slipped in at an angle to prevent air bubbles remaining on the surface as no etching takes place at a bubble. Copper etching with perchloride of iron generally leaves an interesting pattern on the etched portions which also is valuable toward holding enamel firmly, if such is to be added.

IT MAY NOT BE POSSIBLE TO BE SUPREME IN MORE THAN ONE ART, BUT THE ARTS ILLUSTRATE EACH OTHER; AND A KNOWLEDGE OF OTHER ARTS AND THEIR CAPACITIES IS SURE TO REACT UPON AN ARTIST'S PRACTICE IN THE ONE WHICH MOST ABSORBS HIM.

DESIGNS FOR METAL ETCHING SHOULD BE BOLD AND OPEN, AND IN HARMONY WITH THE METALLIC MATERIAL USED

Cover Stamping

A New Handicraft Problem

THE French and English bookbinders have long been famous for their handicraft and the beauty of their book covers. With a series of brass cut motifs which are heated over a flame they press these into the leather, creating beautiful, all-over patterns and designs to which the title is added. With brass wheels lines are added which connect or panel the cover into pleasing divisions.

The problem of cover designing as generally presented in the grades or high schools has heretofore been thought of only in terms of pictorial effects. Possibly this has been because both students and teachers have been influenced by what they have seen most on covers, and American book covers are so often made like small posters in order to advertise their titles and so sell.

The artistic book, however, should contain a designed cover and not a small billboard. The book of refinement, the edition de luxe, is a book whose cover is quiet and as rich in motif and satisfying in color as a Persian rug. The decorations and surface enrichment should be in harmony with the word thoughts and written or printed enrichment that the cover encloses.

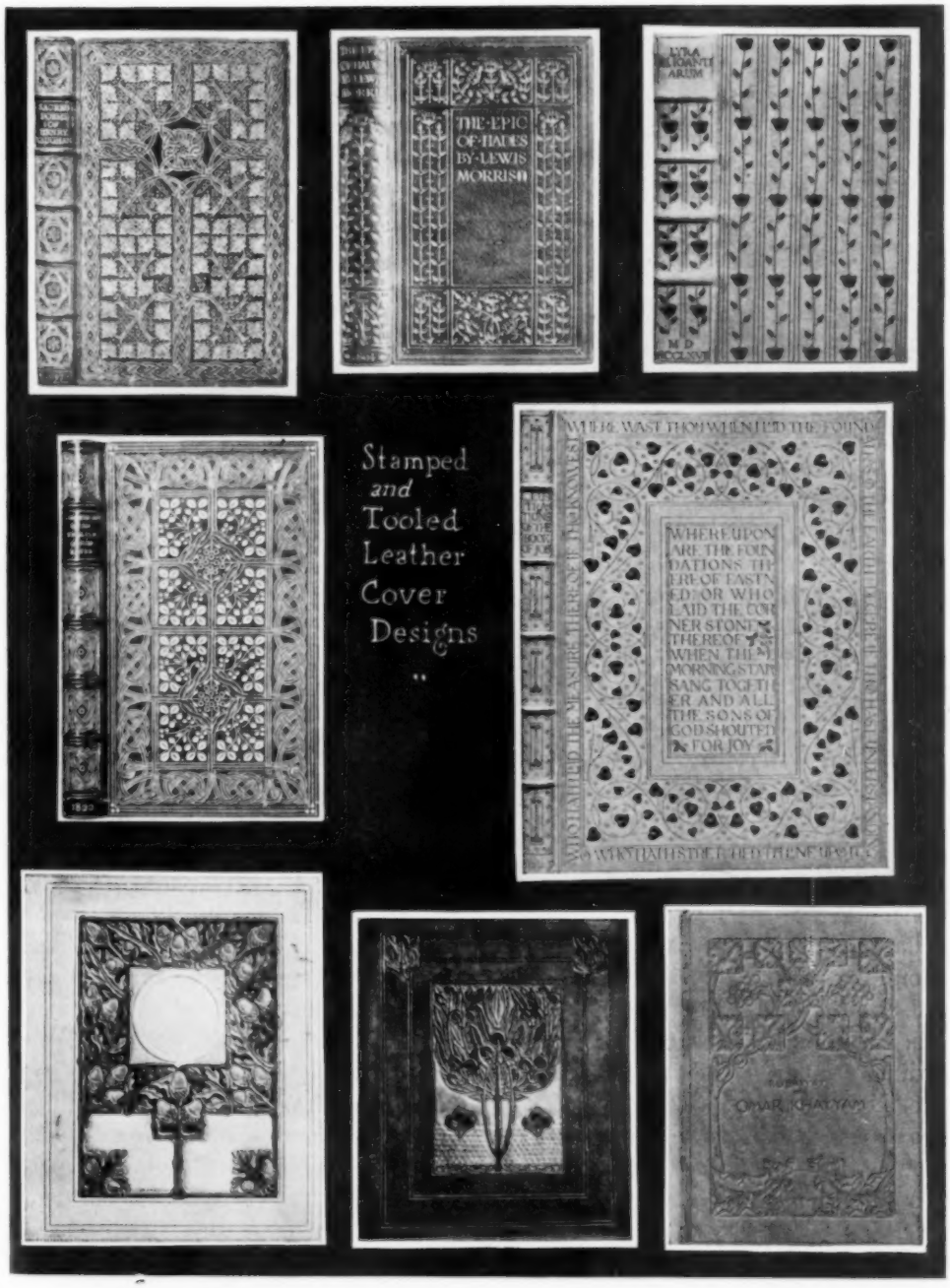
To interest the student in the artistic cover-designing, gather a number of prints of such covers or show him some of the real works at a bookstore or library collection. He will become enthused when he sees that fine publications are encased in such covers and that it is only the popular fiction and commercial books that have the other designs.

Then as a problem plan similar designs for some selected book title, either the front cover only, or both front and back. Secure a number of cover papers from the paper supply house with antique or hand-made finishes which come in many pleasing colors. Secure papers that are soft in finish. Next secure a number of brass rods round or square which should be cut into short lengths and added to a wooden handle. Wire nails put into a handle will do very well. With small files change these into simple motifs similar to the way stick prints may be made from pencil ends.

When the design is carefully planned it is traced onto the cover paper surface and the brass or nail design punch is tapped onto the paper to emboss the design. Lines and panels may be added with a leather tool or a dull nut pick. Different effects on different papers will be secured if water is sponged onto the paper or if the tool is heated. Oil paint or tempera paint may be put onto the tool before each impression. To secure a gold design, gold sizing or gold ink such as is used by printers may be put on the tool and after a small area is embossed, powdered bronze or metal dust is brushed onto the surface with a cotton wad.

A few alphabets of type from a print shop will permit the adding of titles and lettering in the same way or the lettering may be embossed in by hand.

Such covers will add a vocational problem trending toward more artistic covers on the American book.



THESE BEAUTIFUL BOOK COVER DESIGNS SHOULD BE FULLY STUDIED BY THE TEACHER OR STUDENT WHO HAS THOUGHT OF COVER DESIGNS ONLY IN TERMS OF PICTURES AND BOLD LETTERING. THE BOOK COVER SHOULD BE A BEAUTIFUL NECESSARY COVERING TO THE CONTENTS

Finishing Leather Work

IF there is any one handicraft in the schools that suffers in its last finishing steps from lack of good technique, that handicraft is leather work, tooled or modeled. It may be beautifully planned and excellently incised or modeled; but, when it comes to the assembling where sewing and lacing are needed, three-quarters of it becomes marred by the way these last needs are accomplished.

Sewing and lacing can be done neatly by the student if a little patience and care (two things every craftsman should have as part of his equipment) are used. The piece of work is bound to be a delight to the eye forever when the finishing is equal to the beginning in execution.

Leather that is to be sewed on any part should have at least one quarter inch extra edge on the portion to be sewed. It should never be cut down to its final edge until after the sewing is done. If the leather is to be round or square in shape a compass or square should be used to establish the guide line and a firm line produced in ink as a guide to the one doing the sewing. An ordinary sewing machine, either with the regular or chain-stitch, is used by the craftsman and the needle has no trouble in perforating even triple thicknesses of leather if the leather is not too thick. Paper clips may be used to hold the leather layers together in correct positions.

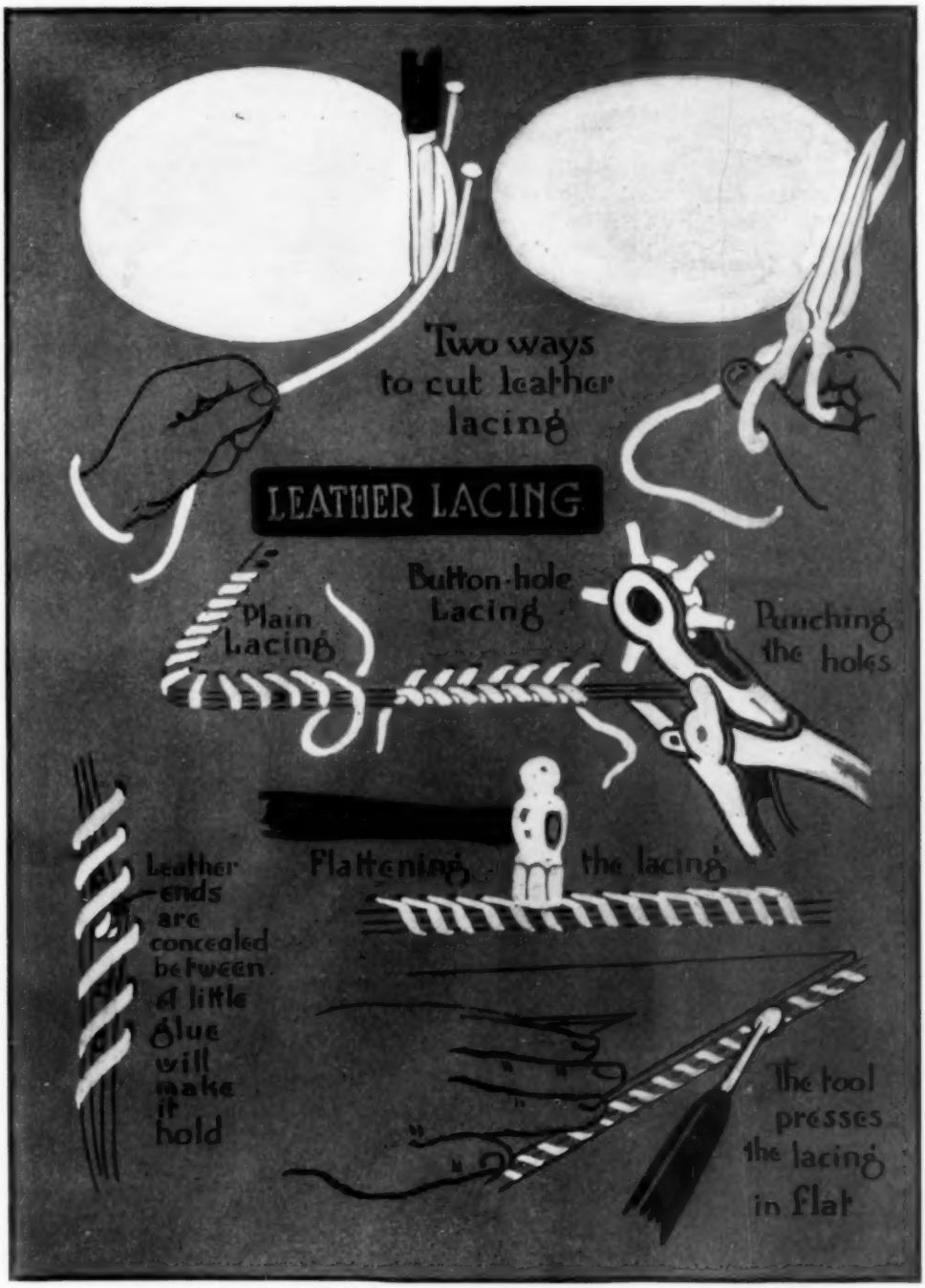
To cut the leather after it is sewed, it should be placed on a board and a sharp knife used (a sloyd knife is good). The entire thickness is cut at one pressure to insure a clean cut edge. A little dye on a cloth is then rubbed on the edge to darken the leather.

Successful lacing requires good leather lace strips and the working plate shows two methods of securing this lacing. Leather punches can be purchased which cut different-sized holes and some have regulators to regulate an even distance of the hole from the edge.

Corners require the holes closer together and leather corners permit better finishing where they are to be laced if they are rounded.

The ending of lacing may be concealed by inserting the end between the two leathers in connection with the beginning end. Or, the leather may be tied in an artistic knot and the surplus left loose.

Thin leather lacing cut from lining calfskin or thick skiver makes the best finish. This is taken and inserted in the leather article closely, but it should not be pulled too hard so that it breaks. The laced edge is then well sponged, placed on a smooth metal surface and tapped lightly with a hammer so as to press the leather in flat. A celluloid triangle is then held firmly on the edge and the lacing along the edge is pressed in with the leather tool. A mark may be pressed into each hole with the leather tool to make each hole a more interesting shape than the round opening, and the lacing is thus finished with a professional appearance.


Two ways to cut leather lacing
LEATHER LACING
Plain Lacing
Button-hole Lacing
Punching the holes
Flattening the lacing
Leather ends are concealed between A little glue will make it hold
The tool presses the lacing in flat

LEATHER LACING SHOULD BE CUT CAREFULLY, FINISHED CAREFULLY AND ADDED TO THE OBJECT CAREFULLY. ITS ADDITION MAY EITHER ENHANCE OR MAR THE LEATHER PROBLEM BY CARE OR CARELESSNESS

Vocational Design Outline for High School Students

1st Term.

1. Problem in Unity.

Take Dot and Dash and have students design four motifs in Black on white paper.

2. Problem in Repetition and Radiation.

Take best one of above motifs and work out a Border or a Square in one Color and Black.

3. Problem in Design Development.

Give students two Skeleton outlines as shown and work out same in (a) Mass, (b) Color. (Note: This is an important step and should be worked out carefully.)

4. Problem in Repetition and Dominance.

Take best of above colored motifs and work out in All-over Pattern.

5. Problem in Lettering.

Copy in Black Ink the Alphabet shown. This alphabet is especially designed for beginners and is artistic, yet easy to letter.

Optional Problem for Close of Term:

Clipping Case; Scrap Book; Calendar; etc.

2d Term.

1. Problem in Optical Balance.

Have students make Blue Prints of Flowers on Architect's Paper. This will give the students practice in Line and Mass arrangement.

2. From above Blue Print make 1 drawing in Black and White against colored background (Background should be made first. When dry, flower arrangement sketched and colored over in opaque colors.)

3. Flower Analysis and Design.

Take above flower or a new one and work out three Motifs from same in Color.

4. Problem in Symmetry and Balance.

Work out from first term's alphabet, or any other simple one, three combinations of Monograms as, (a) Circle, (b) Triangle, (c) Square.

5. Application Problem.

If student takes art metal work, sketch sheet of art metal designs, using either the above monograms or flower motifs. If dress-making, costume designing, etc., sketch designs for belt, collar and cuffs. (Note: These last designs will need some redrawing to fit the limitations of metal or fabric.)

3d Term.

1. Study of Values.

Given simple landscape cut from magazine, copy it in Black and White. Use ink and only one tone. This problem may be added to by having the students draw the same illustration in various tone arrangements.

2. Re-draw the above in three tones, using Black, White and Gray. The gray should be fairly light.

3. Book Cover Design, using the drawing made in Prob. 2 or a similar drawing. Avoid too much lettering. The sketch is best when made in Opaque Water Color on Colored Paper. This problem could be worked out for a Sketch Portfolio or a Clipping Case.

4. Calendar Design.

Work out design for a calendar with a decorative landscape at the top and pad below or to one side. This should be in colors.

5. Blotter Pad.

This to be worked out with either four small corner designs or two panel ends. Design may be cut out and backed with colored silk or paper or may be painted.

4th Term.

1. Study of Color.

Have students copy color wheel and learn it.

2. Study of Color Phases.

Explain to students what is meant by (a) related colors, (b) contrasting or complementary colors, (c) saturated or diffused colors, (d) monochromatic colors. To make these terms clear, have them work out, say on an 8 x 10 sheet, little rectangles of color showing these combinations.

3. Have students work out two designs from either butterfly, insect or flower. When these are pencilled satisfactorily, have them traced to water color paper and worked out in the four kinds of color schemes.

4. Lamp Shade.

As an applied problem have the students work out a lamp shade using one of the motifs from Prob. 3. The shade using one of the

As an applied problem have the students work out a lamp shade using one of the motifs

from Prob. 3. The shade may be four sided or circular. It may be stained with dye or cut out and backed with colored silk. In all cases shade should be rubbed well on both sides with linseed oil to make transparent.

5. Scrap Book for Soldiers.

Students to assemble and design good cover.

5th Term.

1. Continue Color Study.

Take up Hue, Value, Intensity. Have students first work out these in small rectangles to obtain idea, then apply this to one design.

2. Stained Glass Design.

Work out in brilliant coloring stained glass window from simple landscape or marine. Good size 15 x 20 or 11 x 18 inches. Explain technical limitations of cut glass.

3. Leather Work Design.

Design on brown paper a Coin Purse, Wallet or Note Book Cover. This may be applied to sheepskin leather. Inexpensive as little leather is used.

4. Textile Design.

Explain use of stencils. Have students work out a strong stencil design and cut it from oiled paper. Have them stencil patterns on brown or gray paper with oil paints. If advisable, have students carry this out on linen for table runner, bag or sofa cushion.

5. Book Ends.

This may be worked out in gesso on wood in copper, or leather if desired. Shape of Book End itself should be carefully worked out first.

Commercial Design

6th Term.

1. Study of Alphabets.

Have students learn at least two good alphabets. (a) Poster Type. (b) Classic Roman.

2. Have them design simple window card, 8 x 12 inches, for spring hats, or flower shop. Design may be all lettering, or lettering supplemented by simple design or by decorative illustration.

3. Candy Box Cover.

Using very little wording (as firm name and address) and some design ornament.

4. Illumination.

Work out post card with motto and large initial letter, after illuminated style.

5. Poster.

Work out a four color poster for any of
(a) Thrift Poster, Red Cross, Patriotism.
(b) School Play, School Exhibit, or
(c) Any standard advertised article as Colgates Perfumes, Lux, Neolin Soles, Mother's Bread.

Interior Decoration

6th Term.

1. Design in this term should be more specific. It might be developed into either Interior Decoration or Commercial Design.

If interior decoration, as below:

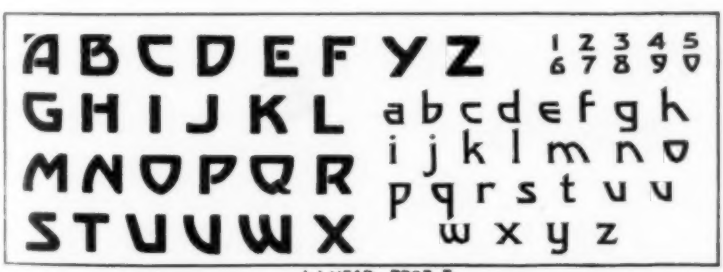
First several talks on various periods of furniture, etc.

Next have class select a type which they feel is adapted to modern use. Having done this, give them for the term's work the following panels, say 6 x 9 inches in size.

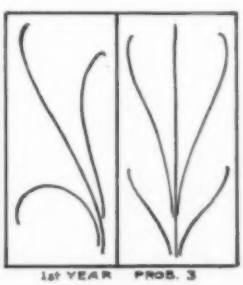
(a) Color Scheme.
(b) Furniture.
(c) Drapes.
(d) Fixtures.

Each panel should contain only enough to show the spirit of the room as in fixtures, a floor lamp, drapes, a window, etc.

Supplementary to this the students should be allowed to make articles for home use as Table runners, Lamp shades, Book ends, Frames, Phone pads, Nut bowls, etc.



1st YEAR PROB. 5



1st YEAR PROB. 3

Vocational Art Outline for the Grades

As Used in Indianapolis, Ind.

Nature Forms. Let the children cut leaf shapes, fruit, vegetables, trees, etc., for form study, and use in illustration and design. These cut paper shapes may be mounted in decorative arrangements on the blackboard.

Subject for Study and Illustration throughout the term:—

Food. Sources, Production and Transportation.

Let pupils illustrate the above by large drawings and cuttings in composition. Let the pupils model farm animals.

Booklets. Let the children make a food or farm booklet and fill with their drawings and cuttings illustrating the subject chosen.

Envelopes. Make envelopes to hold cut letters.

Lettering. Cut large letters from plain paper and arrange words and sentences on board and paper.

Dishes and Doilies. Let the children make envelopes to hold paper dishes and cut circles for doilies, plates, and saucers, and bowls, bottles and cup shapes braced so they will stand

Clay Dishes. Let them model dishes.

Illustration. Use the dishes cut or modeled and let them draw a table, chair and dishes to illustrate (1) the bowls of the three bears, (2) the Baby's supper. Emphasize proportion.

Color. Let the pupils mix secondaries. Let pupils cut and color dolls using primary and secondary colors, and using crayon where black is needed.

Design. Stick print units and borders. Emphasize orderly arrangement and grouping of spots for variety.

Stick print simple borders on dishes and doilies,—each pupil using one color.

Art in the Home. Show the children how to set the table with paper or clay dishes and doilies. Use one color of decorated dishes.

Weaving. Weave paper mats. The first lessons may be in firmer material if desired.

BOOK II—Grades 2B-2A

The Garden. Cut or draw vegetables or plants grown in home or school gardens and use to illustrate stories of the gardens. The plant forms cut may be arranged if desired in a cut paper window box mounted on the board or on cardboard.

Subject for study and illustration throughout the term:—

The Home. Types of home:— Study kinds of homes, materials and methods of construction. Cut, draw, paint, model, or make one or more types of homes studied. (Connect with literature)

Furniture. Cut paper shapes in first mode of furniture used in types of homes studied.

Rugs. Study floor coverings and methods of weaving, and plan a weaving problem. This may be a community rug or small articles on cardboard looms.

Thread looms and start the plain weaving.

Study values and space relations in designs for weaving.

Select the colors to be used in weaving, combining warm and cool, light and dark colors.

Let the pupils make a design for the weaving problem including stripes and units.

Weave stripes and design units.

Color. Study. Color. Tone papers with full tone and tint of colors shown and save for future use.

Construction. Make an envelope to hold cut paper design units. Make a Christmas box for some definite use, planning the proportions needed. *Design.*

Design. Cut design units by modifying the edges of squares not less than 1½" in size. Cut from circles not less than 1½" in diameter, decorative shapes suggested by nature forms. Lay the units cut on dark backgrounds.

The black square may be used for cutting or mounting.

Select the most satisfactory designs and cut from paper previously toned, and use to decorate the Christmas box.

Bookmaking. Make a booklet about the Home.

Use pictures to illustrate the stories written. This may be for words about the Home, or larger for illustration.

BOOK III—GRADES 2A3B-3A

Nature Study. Draw and paint plant forms and vegetables from summer gardens.

Subject for the term—Textiles, Clothing. Compare cotton, linen, and wool textiles. Explain sources. Study the wool industry, illustrating as far as possible with actual materials.

Illustration. Illustrate by drawings and cuttings in 1st mode the methods of transporting merchandise.

Emphasize proportion and size as affected by distance.

Suggestion. A toy store may be made to illustrate methods of distribution of merchandise, and may be used for problems in mathematics.

Weaving. Recall the weaving in primary grades.

Study and ravel samples of matting and cloth to analyze the weaves.

A "room chart" about wool may be made a community problem.

Samples of wool, different weaves, oriental rug knots, etc. may be mounted on the chart.

Let each pupil crochet a doll cap, scarf, bag, or neck band, or braid a cord for modeled, glass or wooden beads. These articles may be used as Christmas gifts.

Book Making and English. Let the pupils cut out the pictures, mount each, and write short paragraphs explaining the pictures. Bind the illustrated composition in a simple booklet form and make the title "Wool" with cut letters.

Construction. Let the pupils make circular boxes to hold their Christmas gift.

Color. Let each pupil tone papers with hues of secondary colors and keep in a folder for use in design throughout the year.

Study and cut from light and dark paper, circular designs suitable in size to be placed on the top of the Christmas box made.

Let each pupil select his best design, cut it from toned papers of pleasing color for the Christmas box, and mount it on the box. Cut out a Christmas card, add color and make and address an envelope for it.

1st Mode Drawing. Complete the work of the term with careful 1st mode drawings from toys and other objects, emphasizing correct proportions.

BOOK IV GRADES 3A4B–4A

Nature Study. Draw and cut shapes of flowers, seed pods, leaves, etc. turned in different positions. Save as suggestions for design spots.

Industrial Subject. Clay. Study kinds of soil and their uses.

Study the clay industry.

Show kinds of clay.

(Can clay be found in your district?)

Book Making. Let the pupils make a mounting booklet for composition about clay, illustrating the stories with pictures cut out and neatly mounted.

Pottery and Flower Arrangement. Study pottery and let the pupils select the vases suited in color and form to the flowers to be used and arrange flowers.

Design. Study the designs shown as suggestions.

Explain the symbolism of Indians, Egyptians, etc.

Let each pupil decide on a shape and size for a modeled paper weight.

Make a symbolic design for the same by cutting or drawing.

The nature forms made in September may be used as suggestions, if desired.

Construction. Model the paper weight and trace the design on the same, lightly.

Let the clay dry thoroughly, at least one week.

Color and Application. Study and make hues of primaries. Select two hues, not pure primaries, for combination on the paper weight. Color the light parts of the design in the hues chosen.

Cut the original design for the paper weight from toned papers using the hues chosen. If satisfactory match the hues in opaque colors, and paint the paper weight. Let it dry. Shellac.

With brush and color decorate a paper for a box to hold the Christmas gift.

Make the box.

Wrap and tie the box neatly.

Letter the address.

Perspective. Study the effect of distance on the apparent sizes of objects.

Let the pupils cut out and arrange in satisfactory compositions the object studied.

Let them make original drawings to illustrate the same principle.

BOOK V GRADES 4A5B–5A.

Nature Study. Make careful drawing of nature sprays, fruits, nuts, grains, grasses, etc.

Industrial Subject. Paper.

History lesson. Study the development of written language and materials used on which to write.

Show paper made of wood pulp, linen, cotton.

Let pupils find samples of each at home and in school.

Demonstrate the method of making paper.

English lesson. Write short compositions about paper making and illustrate with pictures cut. Give care to margins on composition papers.

Mathematics lesson—Give stock sizes of papers used, and estimate the best way to cut the paper, the amount needded and the cost of paper to be used in making the book.

Design. Borders.

Study and reproduce with brush and color a few border designs on for practice.

Make similar original border designs with brush, stick or round nib pen.

Mount the best designs.

Save the designs left on the cut pages.

Color.

Tone papers for use in design making bright and dull, and light and dark tones.

Select a color scheme including one bright and one dull tone and translate the symbolic design cut into color, retaining the values.

Surfaces. Study the plans for surface repeats and try with cut paper shapes as shown.

Units. Study designs.

Explain symbolism.

Cut symbolic designs in light paper and mount on dark.

Applied Design. Block Printing.

Explain principles of printing with type, sticks, and blocks.

Bring corks, sticks, matches, vegetables, etc. and modify shapes to make design spots. Cut away light parts, leaving parts that are to be printed.

Print a surface as a cover for the toned papers made.

Brad the toned papers in the cover.

Christmas Cards. Make Christmas cards decorated wit appropriate block printed, rythmic, or cut paper designs.

Letter with a stick or round nib pen.

Draw from objects illustrating principles of cylindrical perspective.

BOOK VI GRADES 5A6B–6A

Nature Forms. Make careful pencil drawings of plant forms showing blossoms, petals, and leaves turned in various positions.

Use accented outlines (Save for design motifs)

Book Making. Make a book for the industrial subject "Cotton." Directions for the book will be given at the meeting.

Industrial Subject. Cotton.

History and English.

Cotton Industry. Study the history of cotton textiles from the seed to the woven cloth. Let the pupils write paragraphs or compositions on the same, and illustrate with drawings and with original sketches.

Give great care to the writing, page spacing, and mounting of pictures.

Lettering. Titles or explanations of illustrations should be well lettered with small pencil or pen letters.

Design. Plan a cover design in cut paper using dark and light. Let the motif be symbolic of the industry or a design suitable for printing on textiles.

Finish the cover.

Christmas. Make the Yankee 500 board.

Textile Designs. Study textile designs from samples.

Recall the weaving and stick printing methods previously used to make designs.

Explain and demonstrate the tied and dyed process.

Stenciling. Explain the principles of stenciling.

Let the pupils develop original stencil units for the Yankee 500 game.

Trace the design on stencil paper, and cut out the dark parts.

Cut 1¼" square from the black spot and use as background for planning the stencil design.

Stencil on the game board.

Color. Select complementary color schemes and translate the stencil and cut paper designs made into different colors.

Mount results in "Cotton" book as textile designs.

Perspective. Develop principles of one point perspec-

tive and draw from objects and memory to illustrate the same.

Sketching. Study pencil values in sketching and make value drawings.

BOOK VIII GRADES 6A7B-7A

Nature Forms. Draw trees, studying growth.

Read and observe trees with reference to the suggestions given for pruning and care.

Industrial Design.

Structural Principles. Study relative sizes of stock used for different parts of manufactured objects.

Discuss:

(1) Principles of stability and strength.
(2) Kinds of joints used.
(3) Proportions of objects based on:—
  a. Use.
  b. Beauty.

Space Relations. Study space relations in placing and grouping rounds, slats and panels in furniture, doors, trellises, etc.

Notice variety obtained through tapering, turning, carving and decorating, and through the use of curves with straight lines.

From objects:

(1) Make a paper plan of a door or window showing pleasing variety in spacing.

(2) Draw or cut an elevation of a chair, table, desk or bookcase showing pleasing relations of spaces.

Design in paper one or more of the following:

(3) Groups of tucks for some article of dress.
(4) A trellis for a garden or a window box.
(5) A window or garden box of concrete, with paneled sides.
(6) Some article for the shop.

Color. Study values in color and carry out the work.

Book Making. Make a loose leaf notebook for use in any kind of work desired.

Applied Design. Plan a cover design with title and appropriate cut paper decorative unit. Translate into color, using paper or opaque color as desired.

Make cut paper designs for decorating tin boxes, trays, etc. or for oilcloth doilies for cooking centers, or cardboard boxes for Christmas gifts.

Girls may cut paper designs for appliqué or embroidery where needed.

Carry out in Concordia.

Perspective. Develop principles of angular perspective and illustrate with sketches of shop, school, or home furnishings.

Milling Industry. These pages may be used to illustrate compositions or in connection with the study of: current events, conservation, inventions, commerce or cooking, and as help in sketching.

BOOK VIII GRADES 7A8B-8A

The first two weeks of school may be devoted to nature drawing, if desired.

Printing.

References
- The Development of the Book—W. Seegmiller.
- The Biography of a Book—Harper Bros.
- How Prints are Made—Keppel.
- Booklet Making—Bailey.

History. Study the development of printing; methods of printing; shop and industrial methods of work.

Kinds of type used.

Kinds of prints made.

Block Printing

If possible visit a school shop, newspaper office, or a publisher's.

Book Making. Plan—for a history of printing and book-making— a book to be sewed according to directions. Fold the signatures and number the pages.

Page Layouts. Study methods of planning a page.

Study margins.

Make a template for the pages.

English. Write compositions on the "History of Printing or Book Making."

Illustrate with well mounted pictures from magazines.

Give proof reading as an English exercise.

Lettering and Design. Plan the cover with title and decorative design.

Color. Study color combinations and select a scheme for the book cover, considering the color of the cover paper used. Translate the cover design into color and apply on the cover.

Complete the book.

Book Plates as a Christmas Problem. Make a design for the book plate or Christmas card, using cut paper or round nib pen.

Reproduce by linoleum block or blue printing.

Work Drawings. Study working drawing and perspective views of mechanical objects. Translate one drawing from perspective to views.

Perspective. Make perspective sketches of buildings, or of objects in the shop, school or home.

We are students of words. We are shut up in schools, and colleges, and recitation-rooms, for ten or fifteen years, and come out at last with a bag of wind, a memory of words, and do not know a thing. We cannot use our hands, or our legs, or our eyes, or our arms. We do not know an edible root in the woods, we can not tell our course by the stars, nor the hour of the day by the sun. It is well if we can swim and skate. We are afraid of a horse, or a cow, of a dog, of a snake, of a spider. The Roman rule was to teach a boy nothing that he could not learn standing. The old English rule, "All summer in the field, and all winter in the study." And it seems as if a man should learn to plant, or to fish, or to hunt, that he might secure his subsistence at all events, and not be painful to his friends and fellowmen. The lessons of science should be experimental also. The sight of a planet through a telescope is worth all the course on astronomy; the shock of the electric spark in the elbow, outvalues all theories; the taste of the nitrous oxide, the firing of an artificial volcano, are better than volumes of chemistry.

Ralph Waldo Emerson

The Child's First Interest in Pictures

DR. WILLIAM BYRON FORBUSH

"HE HASN'T got him yet!" was the little boy's delighted report each day after looking in his nursery book and discovering that the crocodile in the picture had not yet caught up with the picaninny whom he was chasing.

"Why don't they get to church?" was another youngster's inquiry after he had turned for several weeks to Boughton's "Pilgrims Going to Church," and wondered why they did not arrive.

A third child put his hand protectingly over the pictured figure of a kid, to shield it from an eagle; and another child of kindergarten age has been known to try to feed a pictured animal.

These incidents suggest the rather surprising fact that to a small child pictures are not merely symbols, but a part of his living world. At first he notes the similarity between the household pet and the pictured cast more than he does the difference, and it is a long time before he grasps the idea that the latter is only a symbol.

It is perhaps a little disheartening to us adults, to whom pictures have opened a world of beauty, to realize that it is their usefulness and not their beauty which appeals to children up to six or seven years of age. To them, pictures are simply something to play with. They prefer to have them little because they can handle them more easily. For any practical end they do not differ distinguishably from their dolls.

Ninety-nine per cent of the first drawings of children are said to include the human face. Their affections for ready-made pictures are similar; they like living creatures, people and animals and birds, and they like them best in action. They like only story pictures.

It is somewhat surprising to investigators to discover that, in their earliest interest in pictures, children do not seem to have any marked preference for the colored ones, though later they exhibit an interest in bright crude colors.

In general, they are not curious as to details. They will not notice that a figure is armless, and as we know so well, their own first drawings often have two eyes or ears on the same side of the face. Yet they do seem to single out the eye as an object of peculiar interest. Did you ever have your two-year-old try to stick his forefinger in your eye? Little children often attempt the same with a pictured eye.

The educational lessons which we learn from these primitive tastes are plain, and since, to the small child, a picture is "the real thing" we should select his pictures as we do his other toys, to help him in his little world of experience. They should represent the kind of people and pets whom he should love, engaged in activities which he can understand. Simple incidents, playful, jolly, and unselfish, should be our choice, without reference to their esthetic purpose.

While we need not strive to select great art, we may choose clear, strong color and simple, well-drawn action. Thus we can lay foundations for appreciation of the beautiful.

Above all, each picture should suggest a good story, and we should give the story with the picture.

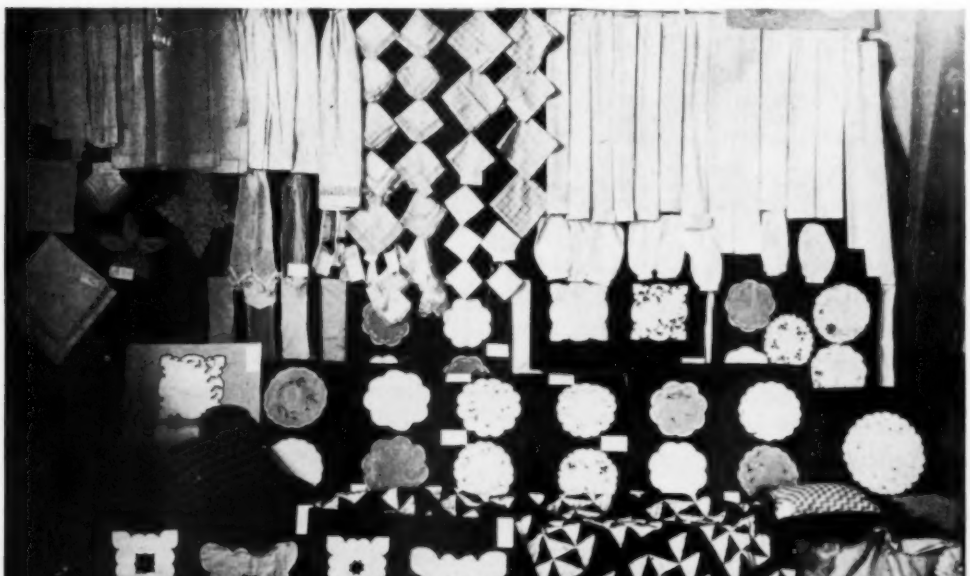
Good Ideas from Everywhere

TEACHERS EVERYWHERE ARE INVITED TO SEND IN ORIGINAL IDEAS AND ALPHABETICON MATERIAL FOR THIS DEPARTMENT. THE EDITORS ARE GLAD TO CONSIDER ANYTHING SUBMITTED AND WILL PUBLISH IT IF POSSIBLE. HELPS FOR THE GRADE TEACHERS ARE ESPECIALLY DESIRED.

MEXICAN DESIGN MOTIFS by P. W. Holt of Galveston, Texas, shows a number of drawings made by Mr. Holt from primitive Mexican decorations. The Aztec and Mayan architectual and other ornamentation are attracting the attention of archaeologists and students of historic design everywhere. American schools should be very familiar with these designs and the designs should be used as an influence toward simplicity and pattern construction by the art teacher. We have after all a primitive design of considerable merit right at home, and bound to be very much more adaptable to our environment if we must adapt from any primitive source.

LINE BORDERS by George Fred Pelikan of Grand Rapids, Michigan, presents a problem in design easily executed with simple equipment. At the same time it has the advantage of being a problem of great value in that it encourages the producing of the most with the least elements. Such borders are very satisfying in their pattern and adaptable to many handicrafts. Similar borders, designed and made by students of the high school, could be easily applied to tooled leather, block printing, textile decoration by embroidery and weaving and simple wood carving. One of these borders is easily worth dozens of the usual wiggly, restless borders worried into existence by students.

NOTAN MOTIFS by George Fred Pelikan shows a page of fine motifs arranged with interesting light and dark parts. Patterns like these make the best of decorations for textiles, either for batiks, blockprints or stencils. By working the designs with charcoal, changes can be easily made and the final design recorded



ELEMENTARY SCHOOL SEWING BY STUDENTS OF A RURAL DISTRICT UNDER THE GENERAL SUPERVISION OF E. H. EASTMOND OF PROVO, UTAH

DECORATED FLOWER POTS BY THE STUDENTS OF THE HUDSON AVENUE SCHOOL, NEWARK, OHIO, MISS EDITH MCCOY, SUPERVISOR, MISS MAUD STADDEN, TEACHER

permanently with brush and ink. The paper can then be erased with a soft eraser to clean off all charcoal.

This nature of work carefully executed by students will create careful craftsmen. No student will be inclined to rush and spoil by execution the carefully thought out and cherished design when it is applied.

DECORATED FLOWER POTS gives a problem that can be worked out in the grades. These were made by the sixth grade students of the Hudson Avenue School of Newark, Ohio, Miss Maud Stadden, teacher. Miss Edith McCoy says;—"Every laddie and lassie in class made one of which he is now the proud and happy possessor. No problem given them has ever inspired such interest or been productive of so much good. Such a happy little class they were as they worked over their designs and color schemes; such careful, painstaking little workers they were as they transferred their designs and painted them in. When all were finished it was hard to say which ones were best. The flower pots were not new and were scrubbed up at home. At school, they were given three coats of ivory paint and the designs painted in with oil colors. Lastly, they had two coats of valspar. Then the gloss was toned down somewhat by rubbing with a damp cloth dipped in powdered pumice stone."

ELEMENTARY SCHOOL SEWING has a recognized educational value when it is based upon the great manual training principle of accuracy. Every girl should learn, at least, the fundamental principles of hand sewing before she leaves the grades, not only because of the very womanly nature of the work but from the economic point of view.

The illustration shows a fair collection of course work done in a rural district under the general supervision of E. H. Eastmond, professor of Industrial Art Education, Brigham Young University. The lady teachers gave the technical instruction. The materials were all furnished by the students for their own pieces of work. The artistic designs were all original, thus giving a greater educational value.

The articles shown here are handkerchiefs, napkins, small table covers, ties, collars, sleevelets and aprons, pillowslips, sofa pillows, doilies and a bed quilt.

NOTAN DESIGNS BY G. F. PELIKAN OF GRAND RAPIDS, MICHIGAN, SHOWING WELL ARRANGED PATTERNS OF DARK AND LIGHT

"I Want to Know"

He that knows not & knows not that he knows not is a fool. Shun him. | He that knows not & knows that he knows not is willing to learn. Teach him. | He that knows & knows not that he knows is asleep. Waken him. | He that knows & knows that he knows is wise. Follow him.

Questions and answers from subscribers, that are of general art information to our readers, will be printed as space permits. All questions should be accompanied by a stamped, self-addressed envelope for reply by mail, and addressed to Information Editor, SCHOOL ARTS MAGAZINE, *Stanford University, California.*

I received a plaster of paris slab, which has the design pressed in instead of being raised. I should like to know how this is done and what is used to paint with. It looks like oil paint and still has a soft, dull finish.

The plaster of paris slab you describe is in intaglio instead of relief. To make one do as follows: Model a bas-relief design or figure in plasticene or clay. When complete surround with strip of oiled cardboard or metal. Mix plaster of paris as for usual casting and it will show the subject in reverse or intaglio, wherein the subject is below the surface and not in relief like the original. To color use oil paints mixed with kerosene and smooth with silk ball over cotton. When thoroughly dry polish lightly with little floor wax on soft cloth.

□□□

We have made a number of basswood problems in the grades. What is a good way of staining basswood?

The best stain for basswood is a water stain. Due to the soft nature of basswood, oil stains are not successfully used as it produces irregular effects. Bismarck brown dry color mixed with water, one half water and one half alcohol, can be used as a tint. A slight polish with floor wax on a cloth after the tint is dry will give a velvety finish. Another finish is to use a thin coat of white shellac, reduced one half with alcohol, to which paint of desired color is added. After the shellac is dried, it is smoothed very lightly with 00 sandpaper and then waxed.

□□□

What dyes are best to use in staining leather and how can it be done evenly?

Aniline dyes dissolved with alcohol should be used for staining leather. These dyes will fade if exposed to strong sunlight but if treated as follows they will remain fairly fast: Dissolve colors with alcohol and put on leather in light washes. Secure dark values of hues by several light washes. never by the full strength in one wash. If a mixed hue is to be used, secure by one wash of the aniline dyes over another on the leather as they are very transparent. An attempt to mix the colors together to secure hues before they are placed on the leather will cause some colors to coagulate and lose their color.

□□□

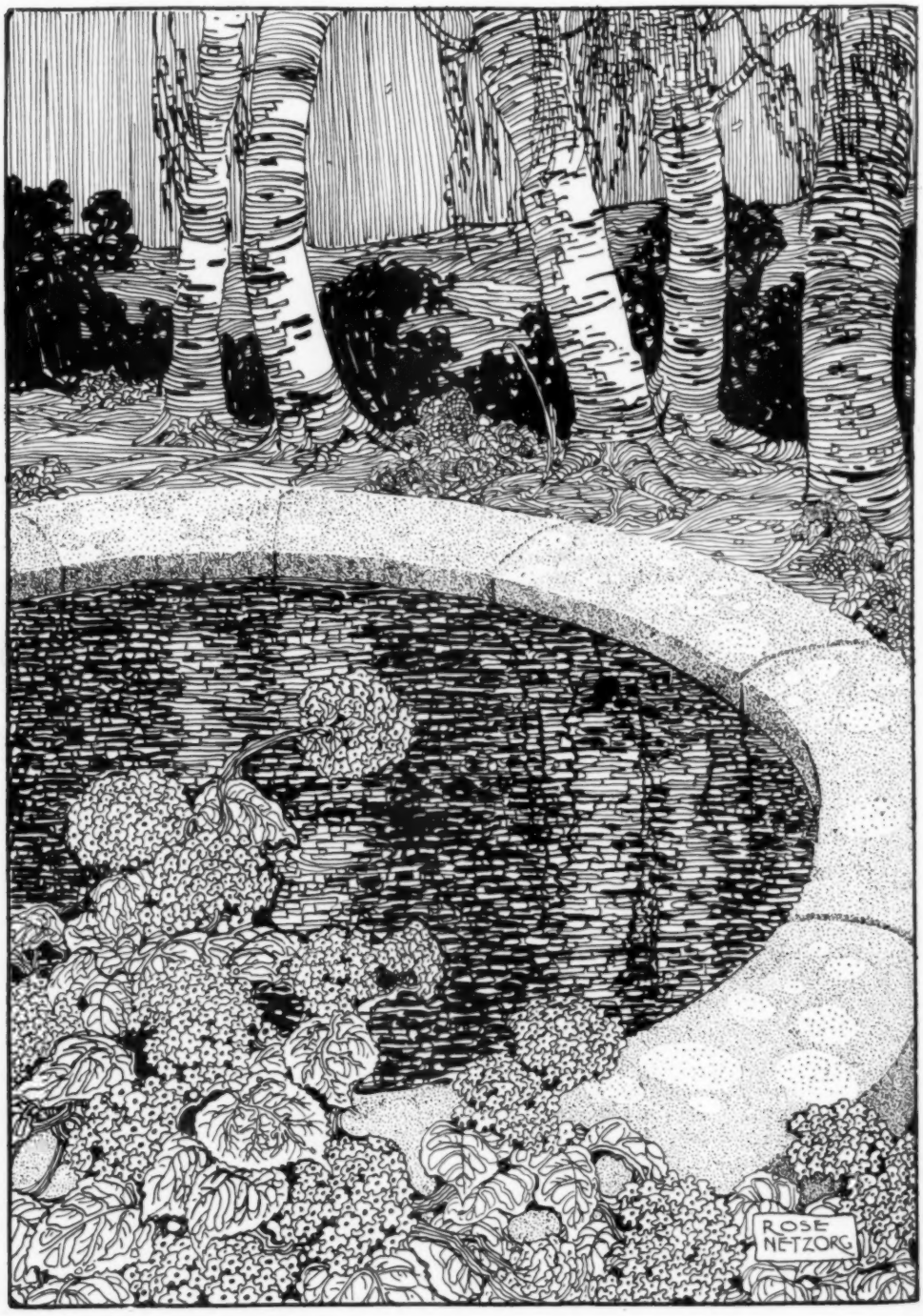
Can you describe how to fume oak taborets and footstools without complicated equipment?

Make a framework of light material six feet long, four feet high and three feet wide. Cover this with oilcloth. Place two or three pans of strong ammonia on the floor with the taborets and footstools grouped so that the oilcloth box will cover them. After forty-eight hours to sixty hours remove the covering and darken the woodwork by rubbing it with linseed oil.

□□□

What is "neat" cement and what difference is there between it and regular cement?

Cement is termed "neat" when cement is mixed pure with water without sand or gravel mixture. Sand and gravel are generally used to add strength to the material, and "neat" cement is generally used to give a fine and smooth finish on the surface.



"REFLECTIONS IN THE WATER." HAVE YOU LISTENED TO DEBUSSY'S PIANO COMPOSITION OF THIS NAME? IT GIVES ONE THE FEELING OF SWAYING BIRCHES HANGING ABOVE A SHADOWED POOL, THE WIND SEPARATING THE IMAGES INTO RIPPLING SPOTS OF DARK AND LIGHT

Books to Help in Teaching

"APPLIED ART" is a beautifully printed set of fifty plates in color contained in a substantial and artistically designed portfolio. The fifty plates each contain a number of designs applicable to various forms of applied art and is a valuable aid and reference for all teachers, students and professional designers. This collection is the kind of material that increases in value with age and is bound to be the constant studio companion of the modern applied art worker. Its publisher is F. K. Ferenz of New York City.

"SOLVING ADVERTISING ART PROBLEMS" is a book with reproductions of and explanatory comments on 250 designs of advertising art which have been unusually successful in helping the sale of a wide variety of merchandise. The book is published by the Advertising Artists, Inc., of New York.

"Art work in Advertising, no matter how beautiful and artistic it might be, is certain to fail in its mission unless it embodies a selling idea." Students and teachers interested in commercial and advertising art will find this book a valuable reference.

"INDUSTRIAL WORK FOR THE MIDDLE GRADES" by Edward F. Worst is published by The Bruce Publishing Company. The book supplies a long felt need for the grades. While much has been presented for the high school, the grades have been overlooked. Mr. Worst presents throughout the 200 pages clear instructions with engravings in both line and halftone which show the various steps described in the text. Light wood work, the various basketry methods, clay modeling, bookbinding and a chapter on cement work are the subjects presented. Aside from the value of this book to grade teachers it has much knowledge for the craftsman who wishes to know how to make objects of beauty and how to make them well constructed.

"BLUEPRINTING," by Mr. John F. Friese, is a booklet giving much needed and valuable instruction in successful blue-printing. It seems strange that, while mechanical drawing in all its forms has been taught for many years in the public schools, there has been no book giving information in regard to the making of prints which are in more or less common use. The above book will be of wide use to the teachers of mechanical and industrial art. It is published by Manual Arts Press of Peoria, Illinois.

"PROGRESSIVE STEPS IN ARCHITECTURAL DRAWING" by George W. Seaman of the School of Industrial Arts of Trenton, N. J., presents a step-by-step method for student draftsmen, together with details of construction and design. It is planned for drafting courses in high schools, technical schools and as a reference book in architectural offices.

The whole book is pleasingly arranged with thirty-six plates from the author's drawings containing clear instructions effectively hand-lettered.

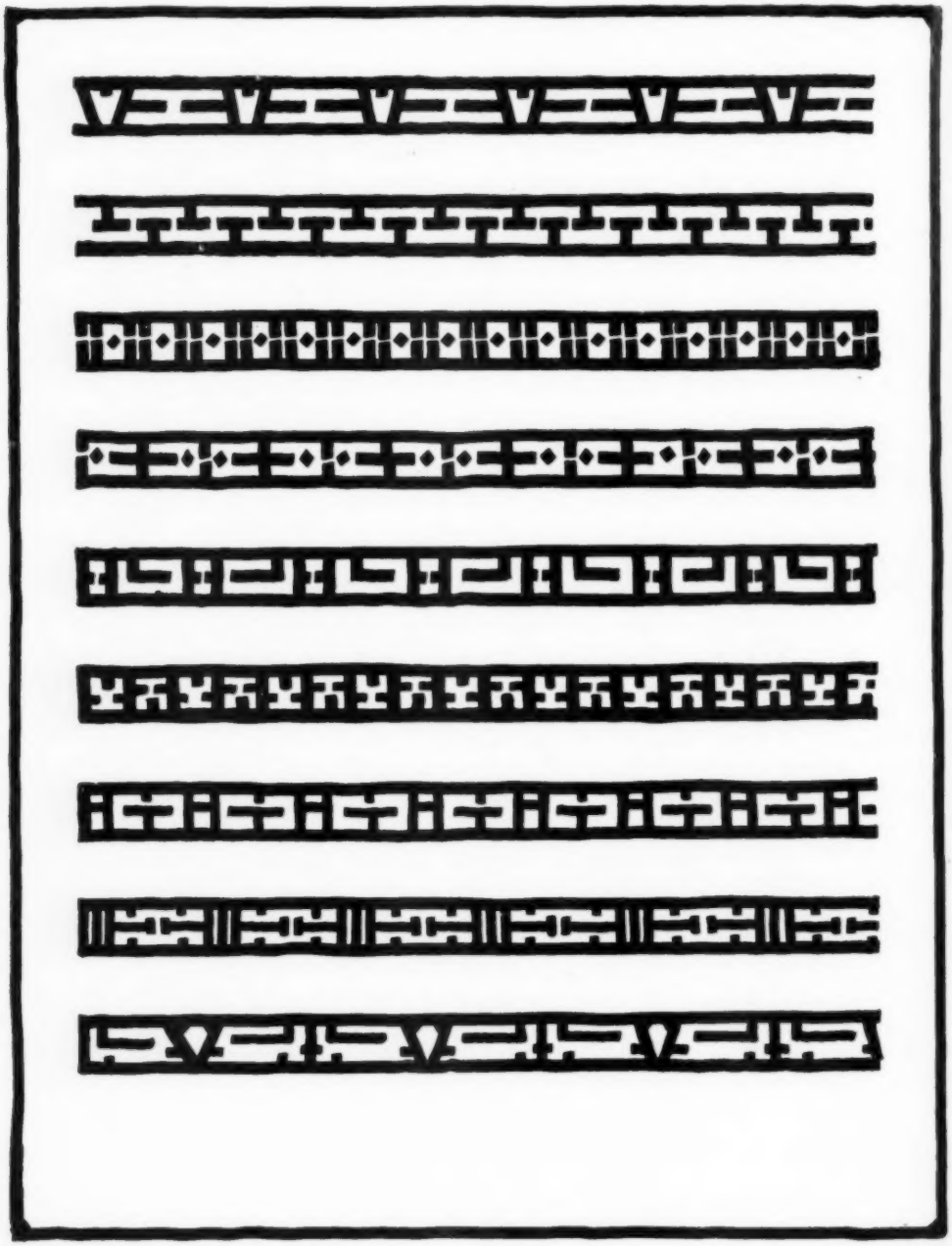
The book is published by the Manual Arts Press of Peoria, Illinois.

"FARM WOODWORK" by Louis M. Roehl, Supervisor of Farm Shopwork at Cornell University, is another of those sensible books published by the Bruce Publishing Company of Milwaukee, Wisconsin. Working drawings, material bills and complete working instructions are given with each problem, photographs having been reproduced to show the completed problems throughout the book. The book is well printed with a durable, cloth-bound cover.

"DAILY LESSON PLAN BOOK FOR VOCATIONAL TEACHERS" is a blank book providing teachers with a means for definitely planning their work from week to week and day to day. The book has been planned by Oscar H. Lipps and is a valuable aid for any teacher who desires to systematize his or her work so as to make it most effective.

FRENCH METAL SIGNS. AMERICAN MERCHANTS' SIGNS HAVE NOT MATERIALLY IMPROVED IN FIFTY YEARS. AS A VOCATIONAL PROBLEM WHY NOT HAVE ART STUDENTS DESIGN ARTISTIC SIGNS. THE ABOVE SHOW GOOD IDEAS FOR CUT OR ETCHED METAL SIGNS

MEXICAN MOTIFS SKETCHED IN WHITE INK ON BLACK PAPER BY P. W. HOLT OF GALVESTON, TEXAS. THE STUDY OF PATTERNS BY ACTUALLY DRAWING THEM FAR EXCELS THE STUDY OF PATTERNS BY READING ABOUT THEM



LINE BORDERS, DRAWN BY G. F. PELIKAN OF GRAND RAPIDS, MICHIGAN. EXCELLENT MOTIFS PRODUCED WITH WIDE POINT LETTERING PEN. SUCH DESIGNS ARE WITHIN THE ABILITY OF YOUNG STUDENTS AND ARE APPLICABLE TO MANY MATERIALS

1794-99. While fashion flaunted her extravagant way through the court of France, the common people, in revolt against the hard times, due to being taxed so heavily for the sake of royalty, discarded from their attire everything that suggested aristocracy. Women discarded frills, adopting a masculine style of dress, a bodice with revers and a simple full skirt. This style was worn by all classes, rich and poor, many wealthy people, and many connected with the court, adopting it for the sake of personal safety. Rosettes of the tricolor of the Republic decorated hats and gowns. The Reign of Terror was hardly over, when Fashion again looked to her laurels. Bodices raised their waistlines, skirts took on ruffles and trains, and the mannish had taken on a feminine droop.
THE MAN: Tricolor $R\frac{4}{10}$, (white), $B\frac{2}{2}$, Hat $Y\frac{5}{5}$. Coat $G\frac{2}{2}$, Vest $R\frac{4}{10}$, Trousers $Y\frac{5}{5}$, Hose $Y\frac{5}{5}$.
THE WOMAN: Gown $RP\frac{4}{4}$, Scarf $G\frac{2}{2}$, Hat Y_{7}, Ruffle $Y\frac{7}{7}$.

NO. XX. PHOTOENGRAVING PRINT METHOD. OPEN LINE WORK.

ZINC LINE ENGRAVING (*Relief*)

WHITE LINE DRAWING. To convey wood-engraved quality or for securing decorative effects a subject may be drawn with white ink onto a black paper. By this method the highlights are drawn with the white ink and the dark parts are represented by parts of the background. Chalk covered papers that are blackened may have the lines scratched into them instead of using white ink.

NO. XXI. PHOTOENGRAVING PRINT METHOD. COMBINATION LINE AND HALF TONE.

COMBINATION LINE AND HALFTONE ENGRAVING (*Relief*)

COMBINATION LINE AND WASH DRAWING. When line and wash drawings are combined, if the two qualities are retained in the engraving it becomes necessary to use both the line and halftone processes. The two results are then combined by the engraver either before the etching takes place or before the engravings are completed. Such engravings generally are more expensive than where one of the processes only are required.

THE ALPHABETICON DOUBLE REFERENCE INDEX

USED AND RECOMMENDED BY THE SCHOOL ARTS MAGAZINE

¶Mount selected material on cards of appropriate color, 10 x 14, large size, to be filed long edges horizontal, and 7 x 10, small size, to be filed short edges horizontal.

¶Decide under which of the fifty general topics each card would be most likely to be in demand. Write that topic in the upper left corner of the card, and place after it the index number of that topic. For example (see page 373), BORDERS 35.

¶In the upper right corner write the specific subject. For example, MEXICAN DESIGNS

¶In the center of the top add the index numbers indicating other topics under which the card might be in demand. For example, 41, for it is a good example of *Symbolism*.

¶At the bottom of the card or on the back write such other useful information as may be needed.

¶File the cards alphabetically by general topics (left hand corner), and under each topic alphabetically by specific subjects (right hand corner), and keep them always in this order.

¶To find *every* card in the Alphabeticon that might be used to illustrate any one topic, for example, Color Study, select every card having the *index number* of that topic at its head.

1 School Topics
2 Illustration
3 Transportation
4 Object Drawing
5 Photography
6 Landscape
7 Picture Study
8 History of Art
9 Natural Forces
10 Plant Life
11 Fish Life
12 Insect Life
13 Bird Life
14 Animal Life
15 Human Figure
16 Sand Tables
17 Clay Work
18 Paper Work
19 Weaving
20 Sewing
21 Costume
22 Embroidery
23 Lace Work
24 Stencil Work
25 Block Printing
26 Basketry
27 Leather Work
28 Geometric Drawing
29 Working Drawing
30 Woodwork
31 Metal Work
32 Machinery
33 Interior Decoration
34 Architecture
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37 Rosettes, Florettes
38 Decorative Arrangement
39 Principles of Beauty
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